

Social Forestry Handbook for Orissa

VOLUME 1

Editors
L. K. Patnaik, H. Egneus and S. S. Das





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FOREWORD

This book is the outcome of cooperative efforts between a large number of persons associated with the SIDA (Swedish International Development Authority) assisted Social Forestry Project being implemented in the State of Orissa. The Project was started in 1983. The first phase was over in 1988 and the Project is now in its second phase. During the first 5 year period, planting and extension work was done in 9 of the 13 districts of Orissa. Now all districts of the State are covered.

The progress of the different social forestry activities has been satisfactory as confirmed by both external and internal evaluations, but a large number of issues, especially related to the rights of the villagers and the distributive pattern, have to be solved if the rural developmental aspects of the Project are to be achieved.

More than 500 persons were directly working in the Project in full time positions when the first phase ended in 1988. By the end of the second phase, more than 1000 persons will be employed. The need for a comprehensive document covering various aspects of social forestry, (and the Project specific issues), therefore, is self evident.

A decision was accordingly taken by the Project Director in consultation with the SIDA Coordinator, to produce a "Social Forestry Handbook" and distribute it to persons working in the Project. Issues to be included in the Handbook were identified and thereafter the writing of the substance matter was given to different persons working directly or indirectly with the Project. They drew upon the material produced in the Project as well as that available for other States.

Endeavour has been made to cover the following aspects:

Summarise the existing modes used in implementation of social forestry in Orissa

Give guidelines on how to work with supporting activities, such as monitoring and evaluation, which are part of a social forestry project

Present relevant documents, with appropriate commentaries, which form the basis for the work in social forestry

Give information about the most important silvicultural aspects of social forestry activities

Discuss important issues of social forestry and show how the discussed issues can be brought to the villagers

Give practical guidelines to the extension workers to undertake work in some of the more complex extension areas

Serve as a Handbook for the village level workers, where almost all major documents used in the Project are to be found.

The editing of the Handbook was done by L.K. Patnaik, I.F.S., Director, Orissa Social Forestry Project H. Egneus, and S.S. Das, I.F.S., (Retd.). The authors of the different Chapters have been mentioned at the beginning of each Chapter. D.N. Mishra, I.F.S., (Retd.), scrutinised the Handbook on behalf of ISO/Swedforest. To give the Handbook its present shape final revision, editing and proof reading was done by Dr. N. Chatterjee, I.F.S., (Retd.) and P. Thege (Swedforest Consulting AB, Sweden).

Chapters 2 and 3 are revised versions of two booklets. Annex 2.4 of Chapter 2 has its origin in a booklet written by J. Thunberg (SIDA and Swedforest Consulting AB, Sweden) entitled "Village Nurseries". The original booklet has also been translated in Oriya and is in use in the extension work of the Project for several years. Chapter 3 is a revised version of the "Forest Plantation Manual" written and revised by S.S. Das and published by the Forest Department, Orissa. The "Plantation Manual" has been used by Project personnel since the inception of the Project in 1983. Chapter 5, introducing a resource inventory, has grown out of a paper written

by H. Egneus and B. Hettne (Human Ecology and Peace and Conflict Research, University of Gothenburg, Sweden).

The journals, analysed and described in Chapter 10, are plantation and nursery journals, modified by P. Thege and later finalised by B.K. Patnaik and H. Egneus. In Chapter 12, dealing with monitoring and evaluation, the evaluation questionnaire was designed by Dipak Roy (then ORG, Bhubaneshwar), H. Egneus and B.K. Patnaik.

It is felt that the Handbook contains much material and information which is relevant for almost all types of social forestry undertaken in India and elsewhere. The emphasis is, of course, on the conditions in Orissa and the special aspects of the Project being undertaken there. This is clearly manifest in some of the special plantation components of the Project, as also in the special legal set up with Village Forest Rules, Joint Management Plans, etc. We also feel that the Handbook will serve as a practical guide to all levels of staff and others connected with social forestry. All Chapters have an introductory part covering policy or concept issues and this part is thus of a more general character.

For the extension workers a number of checklists have been added, which will be found in almost all Chapters. These should be used as guidelines and not be followed strictly. The site specific, economic, social, political and ecological conditions must determine the final use of the checklists and the information in this Handbook.

The Indian names used for many of the plants in this book are a mixture of Hindi and Oriya names, transcribed in English.

For convenience of field workers, the Handbook has been divided into two volumes. Volume 1 contains the text (Chapters 1 to 12) and Volume 2 the Annexes.

The burden of word-processing the entire manuscripts (Volumes 1 and 2) fell on Ms. Fatima Pais of ISO/Swedforest. She also took care of various details leading to the publication of this Handbook. This is gratefully acknowledged.

L.K. Patnaik
H. Egneus
S.S. Das

Bhubaneshwar
December, 1989

LIST OF ABBREVIATIONS

BDO	Block Development Officer
CCF	Chief Conservator of Forests
CF	Conservator of Forests
D	Director
DD	Deputy Director
DFO	Divisional Forest Officer
DRDA	District Rural Development Agency
ERRP	Economic Rehabilitation of the Rural Poor
FAO	Food and Agriculture Organisation of the United Nations
FF	Farm Forestry
FFRP	Forest Farming for the Rural Poor
FYM	Farm-yard manure
g	Gramme
GOI	Government of India
HQ	Headquarter
ICRAF	International Centre for Research in Agroforestry, Nairobi, Kenya
I.F.S.	Indian Forest Service
JD	Joint Director
JMP	Joint Management Plan
KAS	Knowledge, Attitude and Skill
Kg	Kilogramme
L.S	Lump Sum
m2	Square metre
M and E	Monitoring and Evaluation
MD	Man-day
NGO	Non Governmental Organisation
NPK	Nitrogen, Phosphorous, Potassium fertiliser
NREP	National Rural Employment Programme
ORG	Operational Research Group; a Calcutta-based organisation
OGP Act	Orissa Gram Panchayat Act
RCC	Reinforced Cement Concrete
RDF	Rehabilitation of Degraded Forests
RLEGP	Rural Landless Employment Guarantee Programme
Rs	Indian Rupees
SC	Scheduled Caste
SDO	Sub-Divisional Officer
SFS	Social Forestry Supervisor
SFTI	Social Forestry Training Institute
SIDA	Swedish International Development Authority
ST	Scheduled Tribe
VFC	Village Forest Committee
VFW	Village Forest Worker
VWL	Village Woodlot

SOCIAL FORESTRY HANDBOOK FOR ORISSA

CONTENTS

Volume I

NOTE: All Annexes are available in Volume 2

CHAPTER 1

THE CONCEPT AND AIMS OF SOCIAL FORESTRY

(L.K. Patnaik, H. Egneus, S.S. Das)

A. Background

Forests in India are fast disappearing. At the time of Independence more than 22% of India's geographical area was covered by dense forests. Recent satellite surveys show that hardly 11% of the area now supports closed forests, i.e., forests with a 40% crown cover, even though the National Forest Policy enunciated soon after independence in 1952 enjoined that at least 33% of the geographical area of the country should be under forest cover.

In the past, there used to be small village forests attached to most villages or groups of villages. These village forests were not classified as forest land; in fact they were classified as "culturable wastelands" or "tree lands and miscellaneous growth". The villagers had access to these nearby village forests and their produce. The village forests used to meet the requirement of the villagers in respect of fuelwood, small timber, grass, fruit, seeds, gum, etc. Often, fuelwood was locally available at a cost no more than the effort of gathering it. When the population started growing at a faster rate, many village forests were cleared and the land used for planting food crops. The gradual disappearance of village forests from the countryside was also due to over-exploitation for industrial woods, the increased need of fuelwood and excessive grazing. The situation has now become so acute that in many of the districts, in most States, there is hardly any village forest left. The section of the village population which used to depend for their livelihood on the village forest by collecting and selling fuelwood lost its source of sustenance. In the wake of the disappearance of village forests, the entire pressure shifted to the reserved and other forests controlled by the forest department causing their degradation.

The fast rate of deforestation has led to several repercussions. The Indian villager still depends on wood as the main source of domestic energy, particularly for cooking. Good fuelwood is now becoming extremely scarce. Villagers, particularly the womenfolk, have to trudge long distances to obtain headloads of twigs for their hearths. Cowdung, which was supposed to be used as fertiliser for increasing agricultural production, is now being burned in the village hearths. The villagers have to pay inflated prices for building materials such as small dimension timber and bamboos. Environmental conditions are also deteriorating. Droughts are more frequent and widespread. Erosion associated problems are prevalent in most states, manifested either in the form of an increasing desertification or increased flooding. The climate seems to be undergoing a change and many researchers believe that the erratic monsoon periods and rainfall are connected with the disappearance of the forests. Carbon-dioxide is increasing in the atmosphere, partly because of the change from the long term land covering trees to short term land covering agricultural crops. Average atmospheric temperature have thus risen which may lead to serious consequences.

These developments cause concern, particularly those related immediately to the rural people who constitute 80% of our total population. The downhill trend can be reversed through massive afforestation. One of the major constituents of this programme is the social forestry movement.

B. Characteristics of Social Forestry

1. Characteristics

Social forestry can take many shapes, but there are a number of characteristics which can be found in most social forestry activities. These are:

Social forestry is forestry for the people and by the people. In social forestry the

people are the direct, and not the indirect beneficiaries, as in the case of traditional forestry. Social forestry cannot develop without full participation of the people.

It is forestry on a small scale. It is an undertaking by an individual, a household, a group of households or a community. It is therefore limited in scope and scale as production inputs are limited in the hands of these entrepreneurs. If resources are made available, either through community or governmental action, the scale can be increased. Social forestry activities are often divided into two classes; Community Forestry and Farm Forestry depending on whether the benefits of the activity are directed towards the community/part of the community or an individual.

The poor, represented by individuals, households or rural communities, cannot wait for a long time period for reaping the benefits/ harvests from social forestry undertakings. Therefore, the species have to be fast growing, early maturing and with multipurpose yields such as small dimension timber and poles, fencing, fuelwood, leaves for fodder and organic fertilizer and flowers and fruit for food. The harvest should be extractible by in-house labour as a family enterprise.

Unlike traditional forestry practices, social forestry may range from mono-cropping with multiple use goals (fast growing tree species for fuelwood, poles and fodder) on one end to multiple or integrated cropping systems for a multiplicity of uses (trees integrated with food crops) for wood, food, fodder and green manure production on the other.

In traditional forestry local people only serve as hired workers of government organisations or of corporate bodies which plan, implement and manage the forests. In social forestry, on the other hand, the villagers take the prime initiative of planning and managing their projects. Consequently, they bear all the costs, take all the risks, but also reap all the benefits for themselves.

To sum up, social forestry is a small scale land-use operation ranging from pure forestry to integrated agro-forestry, planned and implemented by individual villagers or communities to yield products and services for their primary use and benefits. The land used for social forestry could be privately owned, community or clan owned, or government controlled; in the last case, the land has to be accessible to farmers.

2 Activities

A variety of tree planting and allied activities are included under social forestry. These can be classified as follows:

2.1 Nursery Production and Management

2.2 Plantation Development

The following kinds of plantations are undertaken in social forestry:

a) Block plantation on government land of various descriptions, such as degraded forests, tank foreshores, village commons and the like

b) Strip plantation on government land like roadsides, sides of railway lines, banks of canals and other water courses, and shelter-belts along sea shores and other wind affected areas

c) Plantation on private lands, i.e., farm forestry

d) Plantation for soil and water conservation including plantation on mine wastes

e) Plantation for recreation and bio-aesthetics like city and institutional plantation, plantation around factories for pollution control and environmental amelioration.

2.3 Supportive Activities like Extension, Training, Research and Publicity.

C. Social Forestry in the Indian Context

Social forestry has until now been a mainly government designed activity, in many cases with a supporting role by foreign cooperating agencies. This pattern may persist in the near future even if promising projects and initiatives are now increasingly being taken by NGOs (Non-Governmental Organisations) and individuals. This means that some of the characteristics of social forestry described above may either be missing or interpreted in a specific way depending on the agency in charge of the activity.

If the problems associated with deforestation are to be solved, it is imperative that social forestry should increasingly become a peoples' enterprise where the government has a supporting and non-implementing role. Tree planting by people must become an integrated part of the rural life and be as natural as agricultural activities are in the village today.

Social forestry, whether approaching the issue of afforestation through a community or individual activity, needs a supporting organisation. If the aim is to support people and not only plant trees, such organisation should have a high capacity for extension.

Evaluations of several on-going social forestry projects in India, show that in most cases the technical side, i.e., raising of nurseries, preparation of planting sites, the actual planting, etc., is functioning or can be made to function satisfactorily. The evaluations also generally show that there are two constraints to a successful social forestry activity. The first is internal and the second external.

The most important internal constraint is the creation of an appropriate extension organisation which can activate the participation of people and which has education of the rural poor as an important goal. The often unrealistic physical targets and the time period allotted an activity are also internal constraining factors.

The external constraints are those which can be found in almost all development projects in rural areas. Poverty, stratified village societies, increasing population and the short-term perspective for survival, all make a long term activity like forestry hard to implement. In addition, legal restrictions for using land, or producing commodities on land which could be made available to the villagers or the village communities, are also serious constraints.

Whatever methods, approaches or planting activities are chosen, the need for a highly informed extension worker is the key factor in social forestry enterprises. This worker must not only have a good knowledge of different silvicultural matters and the social conditions in the working areas, but must also be trained to work with people and to organise them for the afforestation work. This worker must also be trained to set up training situations especially where the target groups are poor and women and the aim is rural development.

Social forestry organisations in most states are manned by the forest departments. This means that the actual worker at the village level is a ranger, forester or specially employed village level worker. Whether the extension worker belongs to the forest department or not, a large number of problems related to the work are faced. Some of these are:

In most cases there are no women in the cadre*. This is a major problem as much of the social forestry work is undertaken by women and many projects consider women as a major target group

The educational structure within forest departments and even within social

* In Orissa, female foresters have been trained during the last two years and are now an integral part of social forestry activities. The first female rangers joined the Social Forestry Project during 1988.

forestry organisations still puts a low priority on extension training and education

The relations between personnel from the forest department and the rural population are in many cases strained because of the old "protective and regulatory" role of the forest department

Planning for people's participation is not a concept which has generally been used in the forest department. A top to down approach prevails, even if not intended. Social forestry, being a process where bottom-up planning is necessary, is therefore hard to achieve

There are a number of facets in a departmental structure which can be and often are difficult to reconcile with the work of an extension worker. Examples of such facets are personnel transfer, transport problems, heavy demands from the bureaucracy on reporting, issues related to the emphasis on physical targets (and not on social and development-oriented targets), etc.

The Lower echelons of the cadre have little experience of NGOs and other local organisations. Consequently, such organisations are often considered as interfering and difficult to work with.

The problems associated with these issues have been tackled in different ways in different projects. Almost all solutions are based on educative or organisational changes.

D. Social Forestry in the Orissa Context

1. Aims

The Orissa Social Forestry Project defines "Social Forestry" as follows:

Social Forestry:

Is the creation of sustainable forest resources for the people, by the people, with government support

Its implementation implies full involvement of the people as individuals and as members of local communities

Creates resources primarily to meet the needs of the people for products of importance in the local economy such as sustained supply of fuelwood and fodder, wood for rural requirements, small scale industries and handicrafts and minor forest produce

Aims at the establishment and/or reintroduction of tree cover over areas of land which have become degraded. This will help to restore the environment close to the villages and farmland and contribute to soil protection and soil improvement.

Social forestry is essentially a strategy encompassing rural development, poverty alleviation and forestry activities addressed principally through the participating villages. When formulating objectives and strategies for achieving the overall aims, the following need especially to be considered:

a) Forestry is an activity which, in order to fulfil the needs of people and society, must have access to required land area

b) Operations take place over a long time period and the gestation period is long, generally longer than 5 years

c) Social forestry, aiming at people's participation, is a small scale decentralised activity with special problems related to silviculture, extension, training and social areas

d) Socio-economic diversity and ecological relationships in different parts of the State

e) Predominance of large tribal population in many districts

f) Excessive livestock population found in most of the districts

g) Existing level of degradation of forest, revenue and village common lands

h) Existing organisation for social forestry and forestry operations

i) Social forestry, to a large extent, is a question of managing a common property resource with attached problems such as sharing of produce, decision making and participation by the whole community, etc.

j) Qualitative long-term objectives (developmental) must be related to the short-term quantitative (physical) objectives

k) Complex relationship between the rural development strategies and the qualitative and quantitative aims of the Project, especially when seen in a longer time-perspective.

In general, three major features characterise the Social Forestry Project under implementation:

Market orientation, reflecting the interest of the community as a whole or of the individuals for cash income from social forestry produce itself. This interest is clearly connected to Project aims, as independent management of the common property resource by the community entitles it to dispose and utilise its own resources

Social orientation, reflecting the Project objective that resources created must serve the community as a whole and improve the living conditions of the weaker sections in particular. This objective can only be achieved if the local society confirms it and evolves strategies that facilitate production bias towards the poor

Environmental orientation, reflecting the long term interest of the society for rehabilitation of the potentially productive resources, which have been neglected and/or have deteriorated over decades. The process requires long-term commitment by all the parties involved, i.e., individuals, communities and the government. Substantial inputs have to be invested without the prospect of immediate returns.

2. Objectives and Strategies for Implementation

The objectives of social forestry activities can be divided into three major classes summarised below:

2.1 Production Objectives:

Satisfy wholly or partly some of the basic needs of the rural population like small timber, fuelwood and fodder

Produce raw material for village level cottage industries based on forest products

Generate, marketable surplus of forest products to yield cash incomes and improve the consumption level of the village poor

Increase crop yields through appropriate agroforestry models

Increase yields of edible flowers, fruit, tubers and other minor forest products.

2.2 Rural Development Objectives:

Create additional gainful employment for the rural poor with an accent on women and develop self-employment activities related to forestry

Increase income of the weaker sections of the village community

Create new assets which can form part of a village-based cottage industry or which can be incorporated in the existing forest based economic system

Introduce sustained-basis systems for common property resources managed by the village community which strengthens the benefit sharing mechanism and local decision making process

Increase the participation of landless, small and marginal farmers in the management of common property resources

Help develop tribal intensive areas.

2.3 Ecological Objectives

Protection and improvement of the soil

Reclamation of degraded lands

Decreasing pressure on natural forests

Providing environmental stability.

3. Strategies

The Project can be described as a system where the fulfilment of its aims depend on an intimate interaction between Project personnel and the inhabitants of the selected villages. The relations between participants, villagers and the Project are governed by the Joint Management Plans, the Village Forest Rules and other pertinent legal documents related to forest management and product utilisation.

The strategy also implies that the major emphasis of the Project is the village approach, i.e., villagers shall participate and that the resources created shall belong to the village and should be shared, re-generated and expanded by everybody on his own. The extension and training activities of the Village Forest Workers (VFW) are therefore to be seen as more important than the actual achievement of a physical target, albeit there will be no interest if there is no functioning plantation activity.

4. Pre-requisites for Implementation

4.1 People's participation

Community forestry is a viable long-term option only if true participation of all segments of the village communities is forthcoming. Participation is necessary because, in a longer-time perspective, necessary large scale afforestation must be undertaken by village communities or individuals without the financial support of the government. The Project must therefore be a vehicle for disseminating necessary knowledge and techniques to people so that they can undertake forestry operations by themselves in the future. In a shorter-time perspective, the participation of people is necessary because it is the only viable option for ensuring plantation protection, for introducing a system of sharing produce among villagers in an equitable fashion, for deciding what should be planted and how the trees should be used and enabling them to undertake self-generating tree production schemes.

To ensure this participation, the Project personnel must spend most of their time on the training, motivation and extension parts of the social forestry activities. All Project personnel from the Director to the Village Forest Workers should thus work as motivators and all activities undertaken must be viewed in the light of the participatory aspect.

Planning, training and extension activities must follow a fact-finding and bottom-up process. It means that the Project personnel, during field visits, must identify the forestry problems as envisaged from the village point of view through dialogues with the villagers. They must identify demands, perceived use of the trees, the existing pattern of forest use, the preferred trees for planting, etc. In this process, it is important that special emphasis is given to collect information, discuss and plan with all sections of the village society including the poor and women, who seldom are heard in an actual planning and implementing process. The facts that the activities undertaken are for the people and not forest department operations, that the produce is a community resource, that the harvesting, management and end use is for the village to decide and that the Project is a supporting and complementary unit and not a supervisory or "give-away" organisation, must be widely disseminated.

Participation must also be secured by ensuring that decisions are made by the villagers themselves. It must be emphasised that there is a contract between the Project and the Village, that obligations and rights are mutual and that the relationship between all parties should be one of reciprocity and partnership.

4.2 Physical and Legal Provision

The Project activities cannot be undertaken, participation cannot be ensured and it will not have an impact, if land cannot be made available and legal questions related to production, management, harvesting and end use of the trees are not resolved. There are today some procedural constraints to undertake community forestry on demarcated, protected and B Class reserved forests, plain reserves and Praja Coupes** Unless a change takes place, none, or very little active participation from people, will be forthcoming. There are also a number of legal problems associated with a people oriented forestry movement. These problems are related to several aspects ranging from permits to cut trees, transport and sale of produce, to the overall aspect of ownership, management, continuance and enhancement of plantations.

4.3 Decentralisation

A village based tree production system must be based on decentralised activities. This means that the Social Forestry Supervisor (SFS) and VFW must undertake their work at the village level. Planning, training and motivation must be a village activity. Nurseries have to be decentralised. Active cooperation with non-governmental organisations present at the range or village level should be sought and they ought to be seen as important vehicles for implementing the aims of the Project. The concept of decentralisation also implies that employment and support for activities related to the development and use of forest produce would take place at the village level.

4.4 Cooperation

The Project will have to establish close cooperation with other concerned departments like Revenue, Community Development, Tribal and Harijan Welfare, Environment and Agriculture. At the district level close cooperation is necessary with the Block Development Officers, Tahsildars, Sub-Divisional Officers, the Collectors and territorial forest staff. It is only through cooperation here that many of the problems associated with, for example, procurement of land can be solved. Contact with other agencies implementing Rural Development Projects such as RLEGP, ERRP, NREP, etc., is necessary both from coordinatory point and for dissemination of information and

** Praja Coupes: Parts of A Class reserved forests set aside for use of products by local villagers.

possible support. Contact must also be established with different corporations, cooperatives, banks and credit institutions working in areas related to forest activities.

CHAPTER 2

NURSERY

(*J. Thunberg, H. Egneus, S.S. Das, B. Rautray*)

A. Role of Nurseries in Social Forestry

The establishment of good nurseries which can supply quality seedlings of different species needed for social forestry is the corner stone of successful plantation activity. Before the massive afforestation programmes were launched under social forestry, the requirement of planting stock for raising departmental plantations within the reserved forests was met through permanent central nurseries maintained at some suitable sites. They were efficiently managed and were able to produce quality seedlings of a large number of species from year to year. Departmental plantations in reserved forests can be tackled through such permanent nurseries as the plantation areas are concentrated in a few pockets and transport of seedlings to the planting sites pose no problems because of the existence of motorable roads.

In the context of social forestry plantations which are dispersed over a large number of small, scattered, patches, central nurseries are not convenient. It is necessary to have a large network of small decentralised nurseries close to the plantation sites to avoid long transportation distances, with attendant damage and mortality. The nurseries have to supply planting stock not only for plantations being raised under the Project by the social forestry organisation, but they have to meet the demands of the farmers under the farm-forestry component. The larger their number and the greater their dispersal, the better the survival and success of the plantations. However, permanent central nurseries may be useful when it is necessary to raise planting stock requiring special care, or as back up nurseries and for training and research purposes.

Nurseries may be classified as Permanent, Semi-permanent and Temporary. Permanent nurseries have already been mentioned. Semipermanent nurseries are those that function for more than one or two years. They are meant to supply planting stock for an on going planting activity in its neighbourhood or because there is a continuing demand for plants from the nearby villages. They are also needed if seedlings of fruit bearing species, which generally need more than one year in the nursery, are to be grown. The temporary nursery is operated only for one year to supply plants for a plantation in its vicinity, after which it is abandoned.

Nurseries are also categorised according to the agency which manages or runs it. Thus, there are kisan nurseries, school nurseries, NGO nurseries and private nurseries.

B. Decentralised Nurseries

1. Why Decentralized Nurseries ?

There are a number of reasons why decentralised nurseries are important in social forestry:

Decentralised nurseries are the only practical way by which the distribution of a large number of seedlings can take place when the number of plantations and planting sites are very large. In social forestry, the number of villages involved and plantations raised can be several thousand, located all over a state. Target villages selected may be located far away from each other, and the needs and demands of the villagers may vary with the local social and ecological conditions. The demand for plants can be catered only through a large number of widely dispersed nurseries

By decentralising nursery activities, it is possible to involve a larger number of people. This is of importance as one of the aims of social forestry programmes is to promote a people oriented tree planting movement. A decentralised nursery then becomes the logical extension and training place in the initial stages of the

development of such a movement. The location of a nursery will form a growth centre from which ideas about social forestry can spread to people.

Decentralised nurseries may be departmental or non-departmental. Kisan, NGO, school and private nurseries are all examples of non-departmental nurseries. Since the aim is to establish a large number of widely dispersed nurseries, they have, of necessity, to include non-departmental ones as well.

2 Guidelines for Setting up Decentralised Nurseries

2.1 Project Managed Nurseries

These nurseries are raised according to the demands as specified in the Village Resource Plan and after formation of a Village Forest Committee. The nurseries are under the overall management of the extension worker. One should not ordinarily locate nurseries much closer than 10 kms from each other. The size of the nursery can vary and will depend on the size, the number and type of plantations in an area. The limitations should be set by the transport distances and other physical factors such as availability of water.

The nurseries should be centrally located in relation to the villages/fields where plantations are to be raised. The selection of land for the nursery should preferably be such that the nursery can be seen by villagers when going to and from work.

The work in these nurseries is carried out by villagers who are locally employed. These workers should be given special training and special efforts to employ women must be made. At least 50% of the persons working in these nurseries should be women. The selection of workers is done in cooperation with the Village Forest Committee, following the guideline that landless and poor should be the first persons selected for this job.

Nursery journals are maintained for all decentralised nurseries. The financial and general rules for nursery management have to be followed. The number of plants and species composition is decided by the villagers in discussions with the extension worker. All material is supplied by the Project. The implements used during the work will revert to the workers after the end of the nursery season.

2.2 Non-project Managed Nurseries

These nurseries are established with the help of the extension workers. In the initial stages, the Project will be the only consumer (buyer) of plants, although a large number of plants will be given away to private individuals wanting to start a farm forestry plantation. The support to the nursery undertakers will be in the form of material and extension. Thus polypots, fertiliser, pesticides, fencing material and other necessary inputs will be supplied and paid for by the Project. These costs will later be deducted from the payments made for the seedlings.

A standard decentralised nursery should have a stock of 10,000 to 25,000 seedlings to begin with. Subsequently, when the nursery managers have shown that they can deliver plants of the prescribed quality, the size of the nursery can be increased. These nurseries may be established by farmers on their land holdings, in school compounds and on land provided/arranged by the Project.

The Village Forest Worker will identify the nursery person/organisation well in time for raising seedlings of species decided between the Project/VFC and the VFW and also depending upon the suitability of the species for the geoclimatic conditions of the locality and the needs of the local community. All the nursery persons would be given special training by the SFS/VFW in nursery establishment and management including seed collection and grading. The Project will give technical advice from time to time. Close supervision of these nurseries by the Project staff is obligatory to ensure production of good quality seedlings. A letter of intent for purchasing seedlings would

be finalised with the nursery manager(s) where the buy-back conditions and quality standards will be specified.

When the seedlings are ready, the VFW will inspect and determine the number of good quality seedlings of various species. If a conflict in the interpretation of quality arises, this should be solved by an external technically competent person who would help in the assessment. These nurseries would sell the acceptable seedlings under a buy-back arrangement at the pre-determined price after deducting the cost of inputs supplied by the Project. The Project should also indicate the latest time by which the seedlings are to be offered by the nursery person to ensure their timely availability for planting.

Semi-permanent nurseries will be needed to produce seedlings which cannot be grown in one planting season. Examples of such seedlings are sal, bamboo, fruit trees such as mango, jackfruit, jamun, tentuli, mahua, bela, etc. At least one such nursery will be established in each range of the Project in order to ensure a steady supply of good quality seedlings. The cost of production of each seedling would be comparatively high and the final price will be determined in accordance with the time required to grow the seedlings to a pre-determined size and quality. The Project participation will be through training, technical guidance, placing orders and a buy back arrangement.

Decentralised nurseries may also be started by families where plants are raised in their homestead land. In this case only a few hundred plants at most should be raised and the quality criteria must be as strict as that for other nurseries. Simple nursery journals as specified by the VFW should be maintained for such nurseries.

Efforts should also be made by the Project staff to stimulate the small and marginal farmers and households to establish private nurseries for sale of seedlings to people in the locality or to the Project. The Project would render necessary assistance to such farmers in working out credit schemes with appropriate financial institutions. The aim is that eventually nursery raising should become an economic activity. A free market in seedlings of forest species should also develop.

3. Buy-back Scheme, Contract and Support System

The decentralised nursery activities would become the backbone of the plant supply system when the quality of the seedlings can be guaranteed and when a business-like relationship between Project officials and nursery managers has developed. These relationships are regulated by the proformae presented below. They do not apply to a wholly private nursery, where the contribution of the extension worker in terms of supply of implements, etc., is nil.

These proformae or documents, plus a nursery register, should form the documentary material for a decentralised people's nursery.

The three proformae or documents are:

An order from the Project specifying composition, number, quality of seedlings and indicating time of delivery

A receipt for material received by the nursery manager

A buy-back letter of intent.

All these proformae are furnished in Annex 2.1, 2.2 and 2.3.

C. Training in Nursery Technique and Management

1. Introduction

If people are to participate in a nursery operation, either as workers or as managers of their own nurseries, they need to be trained in all aspects of nursery work. Several categories of people would need to be trained, i.e., NGOs, school teachers and children,

individual villagers and other interested parties. If the right type of training is imparted, the nursery work will yield high quality planting stock thus ensuring that the first crucial step in establishing a successful plantation is taken.

2. Aims of Training in Nursery Technique

Trainees need to have:

Basic knowledge of different types of nurseries

Knowledge of the skills and techniques of nursery raising

Some knowledge of the financial aspects of establishing a nursery.

3. Target groups and trainers

The target groups for the training are:

a) Villagers (Male/Female)
b) VFC members
c) School teachers and children
d) NGO members, from both registered and non registered societies.

The trainers will initially have to come from the Project. Later, as private nurseries are available, training can be given by people outside the department. NGO members should also be trained as trainers.

Trainers are:

a) VFW or SFS: for villagers, VFC members and school children
b) Deputy Director or Specialist: for NGOs
c) NGOs: at later stages, members belonging to various Non-Governmental Organisations should be active trainers.

4. Outline of the Curriculum for Training

4.1 Theoretical Training

1. Importance and objectives of nursery establishment

2. Descriptions of different types of nurseries

   (A) Departmental Nursery
      (i) Permanent
      (ii) Temporary.

   (B) Non-departmental Nursery
      (i) Kisan Nursery
      (ii) School Nursery
      (iii) NGO Nursery
      (iv) Private Nursery
      (v) Company/organisation Nursery
      (vi) Other.

3. Site selection: Location factors, land, water, soil aspects, etc.

4. Preparation of site and preparation of planting beds, handling of polypots including soil mixture

5. Seeds: Seed collection, seed storage, seed pre-treatment, sowing

6. Transplanting (pricking out)

7. Nursery work: Watering, weeding, pest control, mulching, fertilisation, shifting, grading

8. Nursery equipment

9. Maintaining and managing the nursery

   a) Nursery register
   b) Cost records
   c) Distribution records.

4.2 Practical Training

Trainees must be given practical exposure in all aspects of nursery technique by involving them in the actual establishment of a decentralised nursery.

5. Organising the Training Programme

5.1 Preparatory Steps

a) The trainees should be adequately motivated. Selection should be made by approaching individuals and groups of people. Publicity material and help from all categories of personnel and NGOs should be utilised.

b) All resources such as teaching materials, reference notes, place of conducting training, facilities like lighting, projector, video set, etc., should be available before starting the programme. (Preparation of teaching aids and reference notes must be organised by the Directorate and distributed to all districts so that the material is available to the extension workers well before the start of the year's work). Annex 2.4 dealing with nursery establishment and technique should form the main teaching material.

c) For practical classes, the nursery site has to be selected earlier and necessary arrangements made for the works there. Material which is to be used in the demonstrations should be arranged.

d) Training classes should be held during the leisure time of the villagers. The "availability" of the villagers must be ascertained. As there are both practical classes and demonstrations only parts of the training can take place during the evenings. But it would be better to conduct training during the day time. Training should start just before the actual nursery operation is to commence.

e) Teaching set up:

For Villagers and VFC:

Either the village school or community centre if available, or any place in the village where everybody can gather should be used. Facilities should be such that all can have good seats. Chairs, benches, lighting, etc., should be arranged, as also water and snacks for the breaks. A survey of what material is available in the village should be made well before starting the first training session. If electricity is not available in the village, special arrangements or special material will have to be used during the training sessions

For NGOs:

Training of NGOs will generally follow that of the villagers, but in some cases several NGOs can be brought together and trained at the same time. In such a case,

the theoretical and demonstration classes can be given at any functioning departmental nursery. The practical classes should always be given at the site where a decentralised nursery is to be started

For School Children:

Training of school children has to be organised in the school itself during the regular periods. The work has to be done in cooperation with the teachers and the theoretical classes given in the class room. The nursery should be started on the campus or close to the school and it is here that the practical classes should be conducted.

5.2 Duration of Training

The theoretical classes in Session I should take about 3 - 4 hours and can be given at any time of the day. Session II would take about 2 days as this session is a combination of both theoretical and practical exercises.

Session III is a one or two day exercise, depending on whether a practical session will take place or not. The total duration of training will thus be 3 to 5 days.

6. Training Sequence

6.1 Session I: This will be a theoretical session and will cover topics at items 1 to 3 of para 4.1 above.

6.2 Session II: This will be both theoretical and practical. This session will cover topics at items 4 to 9 of para 4.1. It will be helpful if this session is held in a nearby decentralised nursery where work has just commenced. This will facilitate practicals and demonstrations which are essential for this session. Demonstration of use of equipment and chemicals (fertilisers and pesticides) can be made in Session III.

It is important to note that as many visuals as possible should be prepared on the above subjects. It has a much greater impact than the lectures.

6.3 Session III: Demonstrations at central nursery.

After the theoretical classes, the trainees should visit a central nursery or any departmental nursery and observe the techniques of nursery work including use of equipment and handling of pesticides. After one day observation, trainees should if possible do one day's practical work in the nursery and should discuss with the workers of the nursery regarding skill and techniques of nursery work.

6.4 Evaluation

After the theoretical and practical classes, the training should be evaluated. A proforma for this evaluation will be made available by the Monitoring and Evaluation unit of the Project. In connection with the evaluation, it is important to collect suggestions from the trainees on how they consider both the training and the actual nursery work could be modified or improved. It is also necessary that the extension worker evaluates the trainees in the sense that he/she continuously visits the decentralised nurseries, continues to give instructions or takes up part of the training which earlier was given only in a theoretical class.

7. Suggested Teaching Aids

7.1 Video cassette showing various nursery operations.

7.2 Flip charts

1. Showing the need and demand for nursery products

2. Showing the economic benefits which can come to individuals by starting a nursery.

7.3 Colour slides

1. Picture of a nursery
2. Picture of a temporary nursery
3. Permanent nursery
4. Kisan nursery
5. School nursery
6. NGO nursery
7. Terracing and good drains (avoid soil erosion)
8. Seed flats
9. Basket nursery
10. Polythene bag filling
11. Housing bed
12. The transplanting bed
13. Broadcast sowing
14. Showing watering. If possible on video tape showing sprinkler irrigation
15. Showing weeding with pointed sticks
16. Showing how to handle seedlings
17. Showing different nursery equipment.

7.4 Actual Materials

1. Auger
2. Hosers
3. Polythene bags
4. Insecticide packet/can
5. Nursery register
6. All implements used in a nursery.

Booklets and plant descriptions, both printed and line drawn material without text, should be available at the training site. Annex 2.4, Nursery Establishment and Technique, should also be made available to all trainers and others interested and able to follow.

D. <u>Nursery Establishment and Technique</u>

1. <u>Introduction</u>

A good nursery with adequate stock of healthy, plantable seedlings is a <u>sine-qua-non</u> for a successful plantation. Therefore, establishing and maintaining a nursery of healthy and sturdy seedlings for social forestry planting activities is of immense importance.

2. <u>Establishing a New Nursery</u>

Establishing and maintaining nurseries involve understanding of a number of aspects and the practise of a variety of techniques. Selection of the site, designing and laying out the nursery, maintaining and managing the nursery, etc., are only a few of them.

Nursery establishment and technique being of utmost importance, a detailed presentation of the same is provided in Annex 2.4. As mentioned earlier, it should be the endeavour of Project personnel to use this Annex as a training material. Copies of the same should also be distributed to all those participants and workers who are able to follow the written material.

CHAPTER 3

SOCIAL FORESTRY PLANTATIONS

(*S.S. Das, L.K. Patnaik*)

A. Plantations Under Social Forestry Project

There are two main plantation activities in the Project:

Establishment of community plantations
Establishment of private plantations.

1. Community Plantations

1.1 Village Woodlots on Common Land

This is the most important component of the Project. Plantations under this component are meant to meet the fuelwood, small timber and fodder requirements of the villages as also to provide food for human consumption (fruit, flowers, tubers, etc.) and minor forest products including medicines.

The plantations may be developed on:

a) Government wasteland or on other communal lands
b) Degraded barren hills or podu ravaged areas
c) Strips along village/panchayat roads, canals, tank fore-shores and other institutional areas.

1.2 Reforestation and Rehabilitation of Degraded Forest Areas

This component is confined to forest areas where people can exercise their rights,e.g., "B" class reserves, plain reserves of Mayurbhanj, Praja Coupe areas of Kalahandi and protected forests. Operations under reforestation are similar to those in village woodlots. Rehabilitation consists of stool cleaning, coppicing of the existing tree species and enrichment plantation, particularly in the blanks. The plantations are meant to serve the same purpose as the village woodlots.

1.3 Institutional Plantations

These are to support institutions, villagers, students and local people to organise themselves to a tree plantation programme for the benefit of the institution and/or the community. Scattered patches of unused land around temples, schools, hospitals, community centres, rural market places, etc., are to be taken up under this component. These are mainly environmental and ornamental in nature.

2. Private Plantations

2.1 Farm Forestry

This is an important component of the Project which helps to make people self-reliant in the supply of some forest products or supplement the existing supply of these products from other sources. Planting of trees takes place on private land, on patches of land not suitable for agriculture, in orchards, on homesteads, backyards and along field bunds. Vacant unused land owned by organisations/institutions may also be utilised for this purpose. Farm forestry is basically a private enterprise where support in the form of extension is given to the tree growers.

2.2 Forest Farming for the Rural Poor (FFRP)

This component provides help to landless families including tribals to practise agro-forestry or intensive forestry (density plantations) on marginal government-surplus

land in and around villages. This activity is undertaken in villages where components under 1 and 2 have been started. The beneficiaries are given usufructory rights to the forest products.

Three types of plantations are undertaken:

i) Agroforestry on soils where agricultural crops can be planted together with trees

ii) So called density plantations of trees, where the soil is too poor to support agricultural crops

iii) In tribal areas, either (i) or (ii) is practised but with emphasis on a cluster approach, i.e., all landless families in a village or hamlet are beneficiaries.

B. Starting a Social Forestry Plantation

1. Introduction

This part treats the different steps which must be initiated and kept up when a community social forestry plantation is to be established.

The sequence of events presented in Table 3.1 here shows one way how a social forestry plantation can be established.

Table 3.1: The Sequence of Events in the Establishment of a Social Forestry Plantation

1.	Preparation of Village Resource Plans
2.	Selection of villages
3.	Formation of a Village Forest Committee, start of the preparation of the Joint Management Plan
4.	Selection of beneficiaries *
5.	Assessment of land available for various components and identification and demarcation of areas to be planted
6.	Choice of plants, planning and organisation of the nursery and planting operations
7.	Raising planting stock - the nursery work
8.	Designing the plantation and preparing the planting site - pits, soil conservation measures, etc. - componentwise
9.	Establishing the plantation
10.	Management of established plantations
11.	Protection.

* By beneficiaries is meant: organisations/institutions, individuals/farmers, FFRP beneficiaries, etc.

2. Selection of Villages

2.1 The information in the Village Resource Plan, (Chapter 5), is the basic instrument to use for the selection of a target village or a beneficiary.

Based on the village "summaries" the extension worker prepares a list ranking the villages according to their need and keeness to participate.

2.2 Formation of a Village Forest Committee, Preparation of the Joint Management Plan

The three most important instruments for implementing the aims of social forestry in Orissa are the Village Forest Committee, the Joint Management Plan and the Village Forest Rules. Chapter 6 provides a more detailed description of the VFC and the JMP. It is emphasized that the formation of a representative Village Forest Committee, the information about the Joint Management Plan and the contents of the Village Forest Rules, are issues which must be tackled well before the plantation work is started.

The final selection of villages/beneficiaries is done in consultation with superior authorities and the villages. Institutions and individuals to be involved in a particular year, in the last instance, are decided by the Social Forestry Supervisor in consultation with the Deputy Director. The concerned Village Forest Committee will have to be consulted at every stage in this activity.

2.3 Land Assessment, Identification and Demarcation

The Village Resource Plan (Chapter 6) also covers this issue and should be consulted as also the summarised findings of the inventory. A discussion on what components of the Project can be started can then take place. Final identification of the land to be covered should be made very carefully and always in cooperation with the villagers and the VFC. Here it is important to consider a large number of factors such as:

Interest of the villagers/VFC
Protection of the plantations
Total land area available
Previous use of the land, etc.

When selecting land for different components the following must be considered:

(a) Village Woodlots

These plantations should ordinarily be raised in an annual series of blocks of not smaller than 4 hectares until a total of about 15 hectares is reached in each village. The reasons for this are that the grazing area withdrawn from the village is minimised, the supply of forest products is sustained, the harvesting and replanting activities are spread over a number of years and protection is facilitated. If the total area available in a village is 15 hectares to be planted in three years and the number of families in a village is 150, the resources which would belong to the village are as described in Table 3.2.

Gochar, e.g., grazing land may be included in the land identified for planting as species composition includes fodder species in the woodlots. Before taking a final decision the procedure laid down by the Government or superior authorities should be followed.

(b) Reforestation/Rehabilitation Component

The area for this component is selected by the Deputy Director in consultation with the concerned territorial Divisional Forest Officers. The villagers must be consulted because their previous and present use of the area must form the basis for the selection of the area. In case of differences of opinion between the territorial and social forestry wings, the help of superior authorities would be taken. When it is decided to carry out these operations in protected forests, the relevant government circular or instructions of superior authorities will be followed. If these circulars do not clearly give rights of use to the villagers, this component should not be given high priority. Generally, the areas which could be used for planting under these components will be larger than that for village woodlots. If a forest area is selected, the staggered plantation approach as prescribed for the village woodlots should be used. If an active long time participation is wanted,

special efforts must be initiated. (A changed legal framework would be the largest inducement for participation).

Table 3.2 Calculation of Resources Obtained From a 15 ha Village Woodlot, Planting Density 2500 Trees/ hectare; Species Composition, 40% Fuelwood, 40% Small Timber, 20% Fruit, MFP and Fodder species.

Number of Trees Planted			Surviving		
	Year 1	Year 2	Year 3	Year 4	Year 5
Year 1	12500			7500 (1) 3000/3000/1500	
Year 2		12500			7500 (2) 3000/3000/1500
Year 3			12500		20/20/10 (3)

NOTE:

(1) An overall survival of 60% is assumed after three years. This high survival percentage is, in all probability, too high for fruit and fodder trees. Part of the losses will be due to thinning operations to provide space for the slower growing fruit trees.

(2) Proportion of fuelwood, small timber and fruit, fodder and MFP species.

(3) The number of trees of each category belonging to each family living in the village assuming that the distribution follows the model one family/one share.

(c) Institutional Plantations

Data collected in preparation of the Village Resource Plan would help to make a tentative list of institutions in the target village and the land available for each institutional plantation. List the interested parties and list the institutions in order of preference.

The final list for the year will be drawn up, indicating areas by the Social Forestry Supervisor in consultation with the Deputy Director according to allotments received from Project headquarters. This list will include institutions outside Project villages such as schools, hospitals, religious places and others with a bearing on recreation/social/religious aspects in order to foster public relations and spread the message of social forestry to other target groups.

(d) Farm Forestry

Land which could be planted by private individuals will tentatively be identified in the Village Resource Plan. How many individuals will come forward, and what plants they would be interested in, will be known when the Village Forest Worker starts working in a village. The initiative and interest of the individual land owners is the cornerstone of this plantation component. It must be stressed that the extension worker has an important role in helping the individuals in the village in selecting a piece of land on which trees can be planted. But without an active interest evinced by villagers there is little the extension worker can do. It is important that the women in the household are not only consulted, but also made

responsible for this type of plantation because on many planting sites it will be the women who will be in charge of the actual work in the Farm Forestry plantation.

(e) Forest Farming for Rural Poor

The identification of land and beneficiaries is made in consultation with the Revenue Department and the BDOs. Forest Department personnel must also be consulted where necessary. Relevant government circular(s) should also be followed. Initiate action for issue of "tree pattas" to the FFRP beneficiaries and pursue this matter with the revenue authorities/ superiors as soon as possible.

3. Choice of Plants, Planning Nursery and Planting Operations

3.1 Selection of Plants

The creation of successful plantations partly depends on selecting the right species or species composition. Thus one should keep in mind that:

The species fulfils the objective of the plantation

The species are suitable to the planting site

Its propagation methods and use are easy and well known.

To summarize: the main objective of social forestry plantations is to teach the villagers about forestry, make them start their own forestry activities and to raise trees which yield a large variety of forest products necessary for the villagers for their everyday use. Eg. fuelwood, small timber and fodder, the local people may need, forest products for cottage industries, edible fruits, flowers, leaves, tubers, etc., and other minor forest products including medicines.

As supplies from existing forests are diminishing, these products are required urgently and in ever-increasing quantities. The species chosen for plantation should therefore have some of the following qualifications:

1) Able to produce a variety of products such as fuelwood, small timber, fodder, fruit, etc.

2) Easy to propagate and establish

3) Fast growing and easy to manage and harvest

4) Able to withstand repeated lopping and coppicing to yield copious fuelwood and fodder. One should be able to coppice the trees at least thrice before it is necessary to replant them

5) Preferably nitrogen fixing species

6) Preferably indigenous species or species which have been growing on the locality and which the local people are familiar with

7) Preferably species which are immune to grazing or easy to protect

8) Species which have a known demand in the village and in the local market.

All the above uses and products may not be obtained from one specie or one group of species. If a mixture of products is asked for, one will have to choose a number of species which should be able to grow in an intimate mixture and which can yield the expected end products.

The choice of species will depend on the specific component of the Project and the expressed need and demand of the villagers. The species and pattern of plantation

described in the ensuing paragraphs relate mainly to Village Woodlots, Reforestation/Rehabilitation and FFRP. For Institutional plantation more of aesthetically important species, e.g., flowering, ornamental and shade trees, etc., will be needed.

Farmers who plant on their own land may require fruit bearing trees, tall light crownded nitrogen fixing trees for their field bunds, bamboos for peripheral plantations, species which provide shelter to their fields from hot winds and blowing sands, etc. Special efforts must be made to interview women and find out what their specific demands are. This is important because they often do have ideas other than the men about what tree species should be planted.

The ultimate choice of species will, however, rest with the beneficiaries or their representatives in the village, i.e., the Village Forest Committees, the Institution, the farmers, the women, the FFRP beneficiaries, etc. The role of the extension worker will be that of a guide, during the time when the choice of species is discussed.

The extension worker should not impose his views or decisions. A list of species suitable for social forestry plantation is presented in Annex 3.1. Annex 3.2 contains summarised statements on 40 important tree species. These annexes may be consulted when deciding which species to be planted in various components of the Project.

3.2 Planning and Organising for Further Work

The stage has now been reached where the preparations for actual physical work can start. The extension worker (VFW) should now be ready with:

Selection of village and beneficiaries

Formation of a Village Forest Committee

Selection of plants

Survey of the actual planting sites.

The VFW should also have:

Made notes on whether the species selected should be planted in pure or mixed stands

Made a tentative design of the plantation and mixture

Assessed whether the plantation area requires any special treatment because of water logging, badly eroded areas, heavy soils, saline soils, alkaline soils, etc., and found out if the the area is flat or sloping

Ascertained if the area selected needs stool cleaning, coppicing.

The VFW shall at this stage prepare a treatment map of the areas to be planted. In this map are indicated:

Physical and ecological characters of the plantation sites

Areas where special treatment should be undertaken

- Where different types of plantations will be carried out

Species to be planted and the mixture of plants.

The extension worker should now in cooperation with the Village Forest Committee and superiors make a plan for the nursery and plantation work which should be undertaken. In this plan the VFW should specify:

Capacity of the nursery, type of nursery, special requirements at the nursery, issues related to the work force such as ratio of males/females, number of plants to be grown, a time plan for all activities,safety regulations, etc. (For specific details see Chapter 2)

Type of work to be undertaken at the planting site, labour force needed, material and special labour promoting efforts, time plan for the different activities, safety regulations.

It is important that all operations in connection with the plantation work are carried out on time. The Social Forestry Supervisor will assign specific jobs to the subordinates so that all operations are completed in time, particularly in case of Village Woodlots, Reforestation/Rehabilitation and FFRP plantations. In Chapter 9 detailed work-plans and time-tables for different activities are given.

The selection, organisation and employment of the people who would work in the plantations should be done in a dialogue with the villagers and the VFC as per prescribed rules. Recruitment of workers must be based on a process where discussions with the workers take place, so that they should be motivated for the work. If a top-down process is followed where the extension worker gives orders and prescribes all rules, the chance of an active participation by the villagers will not be forthcoming. It is important that women are given ample opportunity for work in the nurseries and the plantations. As a guideline the labour force should contain about 50% women. At no time should the Project activities be seen as a simple wage generating activity, where the Project only pays for work done and thus could work without any communication with the villagers. The extension worker should keep in mind that much of the final plantation operations take place simultaneously with agricultural works and that this poses a problem when recruitment takes place.

Works in the FFRP and Farm Forestry plantations are undertaken by the beneficiaries themselves. For all other plantation activities workers are recruited from the villages concerned. If the workers available in such villages are not sufficient, workers may be recruited from nearby villages where no social forestry operations are in progress. But this must be kept to an absolute minimum. The Village Forest Committee should participate when workers are recruited from outside the target village.

The extension worker will get help from the Research wing of the Project Head Office which will prepare plantation time-tables for the various species to be planted.

C. Raising of Plantions and their Management

1. Introduction

Success of a social forestry programme, to a great extent, is dependent on the success of trees planted and plantations raised. Properly grown trees have a visual impact, even when they are young, which raises a feeling of "success" among all participants. It is, therefore, necessary that all attempts should be made, right from the very beginning, to ensure such success.

2. Plantation Establishment

Establishment of plantations involves several steps, some of which have already been discussed in the previous paragraphs. Main activities involve (a) preparation of the planting site, which could differ from component to component, (b) actual planting through a variety of planting material such as seedlings, cuttings, stumps, etc., and (c) their proper upkeep and maintenance. Details of the various activities, on a step-by-step basis, is provided in Annex 3.3.

3. Management of Established Plantations

3.1 Management

Once a plantation has been established it has to be managed carefully upto that point of time when it is ready for harvesting. Various activities include replacement of casualties in the early years, weeding and soil working, application of fertiliser, mulching, watering, pruning, etc. An important aspect of plantation management is its protection from grazing and browsing, fire, etc. Details have been provided in Annex 3.3.

3.2 Plantation Costs

It is always desirable to have an idea of costs involved when embarking upon any activity. This is as true for plantation costs as it is for the household budget.

Costs for the various plantation components are expected to vary because of different works involved. In terms of current wage and other rates, and based on present work-norms, estimated cost per ha for different plantation components have been computed. These are also furnished in Annex 3.3.

CHAPTER 4

AGROFORESTRY AND FOREST FARMING FOR RURAL POOR

(L.K. Patnaik, B.K. Swain)

A. General

1. Introduction

Agroforestry has been defined by the International Council for Research in Agroforestry (ICRAF) as:

"A collective name for land-use systems and technologies where woody perennials are deliberately used on the same land-management units as agricultural crops and/or animals, in either a spatial arrangement or a temporal sequence, there being both ecological and economical interactions between the different components."*

A simpler definition suggested by N.T. Vergara is given below:

"Agroforestry is a system combining agricultural and tree crops of varying longevity (ranging from annual through biannual and perennial plants), arranged either temporally (crop rotation) or spatially (intercropping) to maximise and sustain aggregate yields".**

Either definition implies that:

1. Agroforestry normally involves two or more species of plants, at least one of which is a woody perennial (trees, shrubs, palms, bamboos, etc.)
2. An agroforestry system always has two or more outputs
3. The cycle of an agroforestry system is generally more than one year, and
4. Even the most simple agroforestry system is more complex ecologically (structurally and functionally) and economically, than a monocropping system.

The definitions also imply that agroforestry is of two types:

a) In temporal sequence or the crop rotation system, and

b) In a spatial arrangement, or the intercropping system.

The typical example of the first type is shifting cultivation. This is the oldest known agroforestry practice dating back to the human transition from food gathering and hunting to crop cultivation system of livelihood. This is persisting till today in most of the developing nations in the tropics. In this system, cultivation of food crops is rotated with forest fallow, the latter having rejuvenating functions resulting in restoration of soil nutrients and productivity. This system was quite sustainable, as the fallow period was long enough to help the soil regain the original level of productivity. But rapid increase of the population engaged in the practice resulting in relentless pressure on land and shortening of the fallow period has been the main cause of loss of sustainability of this type of cultivation, particularly in the sloping terrain. Several modifications of the system have been tried to maintain sustainability. Except in a few cases (the case of Cebu farmers in the Philippines) success has been dubious.

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* Fernandes, E.C.M. and Nair P.K.R.; An evaluation of the Structure and Function of Tropical Homegardens, ICRAF, 1986.

** Vergara N.T.: Agroforestry: Realities, Possibilities and Potentials, 1987. ED. Henry Gholz, University of Florida, U.S.A., in cooperation with ICRAF.

2. The Intercropping Agroforestry System

This type of agroforestry is also practised in various forms in most developing countries including India. This system will be considered in greater detail in this chapter.

This agroforestry system deals with concurrent production of food crops and forest crops having both production and service roles. This system represents an alternative form of land management that can improve production in a sustainable way, compared to high input agriculture, in marginal lands of low fertility and productivity. The production involving the multiplicity of outputs and sustainability implies soil protection and soil improvement. It also restores the environment close to the farmlands.

In degraded and dry upland areas, the soil is of low effective cation-exchange capacity, low available water and nutrient reserve and highly susceptible to soil erosion. This land, therefore, cannot be used for permanent agriculture. Agroforestry is the suitable alternative for using such land for productive purpose. Most of the dry lands are cropped for a single season, so the rains occuring during off-season usually go unutilised. But if a tree component is there in the system, it can make use of the rainfall in all seasons. Proper combination of trees can help in reducing the soil and water losses on sloping ground. The system has the ability to reduce risk of crop failure. The presence of trees in the system gives extended management options for the farmers, i.e., the tree can be harvested either for fodder, fuel or timber as per the farmer's requirement and market demand. The system also checks the increase in soil temperature, especially during summer months. Thus, it protects the soil microflora and fauna which would be of great benefit for crop production. It helps in recycling of the nutrients from deeper soil layers and returns them to the top soil through leaf litter.

The traditional methods of intercropping are "home gardens" which are found throughout the country. Kerala, where pressure on land is the highest, offers typical examples. Here, even small holdings, less than 0.20 hectares in extent, contain a large number of trees providing timber, fuelwood, fodder, fruit and green manure to the household. The agricultural crops which are grown in the same area include seasonal and annual crops like pulses, black gram, tubers (tapioca, sweet potato, yams, ginger, turmeric, etc.) banana and vegetable as also perennial plants yielding spices like pepper. The tree species are usually planted along the boundaries. Such home gardens are not uncommon in Orissa where a large variety of tree species and bamboos are planted under which food crops like pineapples, yams, arrowroot, turmeric, ginger, bananas, etc., are grown. In coastal areas, screw pine ("kewra" - producing valuable essence yielding flowers) is also planted along boundaries of backyards, orchards and agricultural fields.

This system of agroforestry can be broken into different components such as agro-silviculture, silvi-pastoral, agro-silvi-pastoral, multipurpose tree production, etc. However, in this chapter, the agro-silvicultural system will be discussed to establish a production system for food, fodder, fuel, timber, fruit, etc., which is considered most suited to the Forest Farming for Rural Poor component of the Orissa Social Forestry Project.

B. Forest Farming for Rural Poor

1. Aims

The Social Forestry Project in Orissa has a bias towards the poor and weaker sections of the community and by implication they include the landless. Of the individual based Project components, FFRP, with a special emphasis on tribal intensive areas, is specifically directed to parts of this target group. This activity enables landless families including tribals to practise intensive forest farming on marginal Government-surplus land in and around villages and give them the usufructory rights to the forest produce. During off-season, there is no work for the farmers, especially in dry-land areas. This labour can be utilised for the tree crops. The tree component in the

system also helps in improving the microclimate. Besides, it provides a stable income to the beneficiary from the tree harvests. From the Project point of view, the objectives expected to be served by this activity are:

Provide the means for poor landless and tribals to increase their income by engaging them in a land-use programme

Increase the supply of food and wood products

Demonstrate the cost and benefits of the use of government surplus lands through leasehold arrangements and develop capacities and initiatives of the private sector for carrying out alternative social forestry programme to meet long-term social needs

Provide environmental benefits through improvement of marginal lands

Enhance self-reliance for production of goods and develop the capacity of the beneficiaries

Develop the capacity to organise the beneficiaries into tree-growers cooperatives.

Two types of FFRP activities are undertaken depending upon the ecological conditions. One with an emphasis on agroforestry (viz., agro-silviculture) practices, where the beneficiary during the first few years will grow agricultural crops in conjunction with tree crops, considering the local climatic factors for effective use of light, water and nutrients in order to provide sustainable income to the beneficiary. The other model relates to soils where no agricultural crops can be grown; here a density type of plantation will be introduced. In this chapter, we will deal only with agroforestry model.

2 Strategies for Implementation

2.1 Selection of Beneficiary

The selection of landless beneficiary will be made in accordance with the principles of the existing programme for Economic Rehabilitation of Rural Poor (ERRP). The list of land-less rural poor can be obtained either from the District Rural Development Agency (DRDA) or from the Block Development Officer (BDO). The beneficiaries of the said list, who have not received any other assistance so far, may be selected for the programme, in consultation with the VFC. In case no such list has been prepared by the Block/DRDA for a village, the beneficiary can be selected as per ERRP guidelines in consultation with the Village Forest Committee. The final list of beneficiaries for the year will be drawn up, indicating areas, by the Social Forestry Supervisor in consultation with the Deputy Director according to the allotment received from project headquaters.

The FFRP programme will be undertaken only in such villages where either Village Woodlot/Reforestation components have been carried out.

2.2 Selection of Land

This component will be implemented in Government-surplus land in and around the villages. This land exists physically, but the extent varies from village to village. In almost all cases, the land is degraded and in most cases, these are dry uplands.

The land having the status of culturable waste as per the Records of Rights of the Revenue Department will be selected for the FFRP components. Besides, other leasable lands available in the village may be selected. The identification of land will be made in consultation with the local Revenue Officers. Consent of the Village Forest Committee shall always be taken prior to the selection of land for the purpose. Each beneficiary will be alloted about 0.5 hectare land.

The agro-silvicultural system will be practised in lands having less than 10 percent slope and a minimum of 15 cms top soil. In case of higher slopes, particularly for tribal intensive FFRP, contour bunding and terracing has to be taken up.

2.3 Agro-silvicultural Model

There can be several arrangements for intercropping. Some are shownin Figure 4.1. The most convenient for Orissa conditions is the model where rows of trees alternate with strips of food crops as discussed in the following paragraph. However, research should continue to establish other models of inter-cropping which can be adopted with greater advantage.

The spacing of tree crop will be 4m x 1m, 4m between the rows and 1m within the rows, aiming at a plant population of 2500 trees per hectare. Agricultural/horticultural annual crops can be raised in the 4m interspace between the rows. Pruning and thinning for improving the tree quality will be taken up as and when required.

2.4 Choice of Tree Species

The selection of tree species for this component shall be made depending upon the adaptability to soil and climatic condition of the locality. Besides, the existing consumer preference and market demand should be given priority. The tree selected must be of economic utility to the beneficiary. However, preference may be given to the species exhibiting the following charateristics as far as possible:

Capable of faster rate of growth during early years

Able to share resources including root-zone preference; trees having deep tap root should be preferred

Able to withstand adverse conditions prevailing in the locality

Possess conical canopy and light branching habit

Capacity for stabilising soil

Ability for nutrient recycling and fixation of atmospheric nitrogen

Palatability of leaf as fodder

Compatibility with the agricultural/horticultural crops to be grown in the interspace

Capable of withstanding heavy lopping and pruning

Immunity from pests and diseases and also from harbouring the disease agents

Favour early decompostion of litter

Produce no toxic effect on soil and climate.

2.5 Choice of Agricultural/Horticultural Crops

Considering the degraded and dry uplands available for this activity where the top soil has been washed away, the cation-exchange capacity, fertility and water holding capacity of the soil has been reduced, the choice of agricultural crops has to be determined depending upon the carrying capacity of the soil.

Soil rectification measures such as addition of farm-yard manure, paper mill sludge, calcium and super-phosphate may be taken up to improve soil texture, Ph and fertility. Appropriate water conservation measures are also very important for such soils.

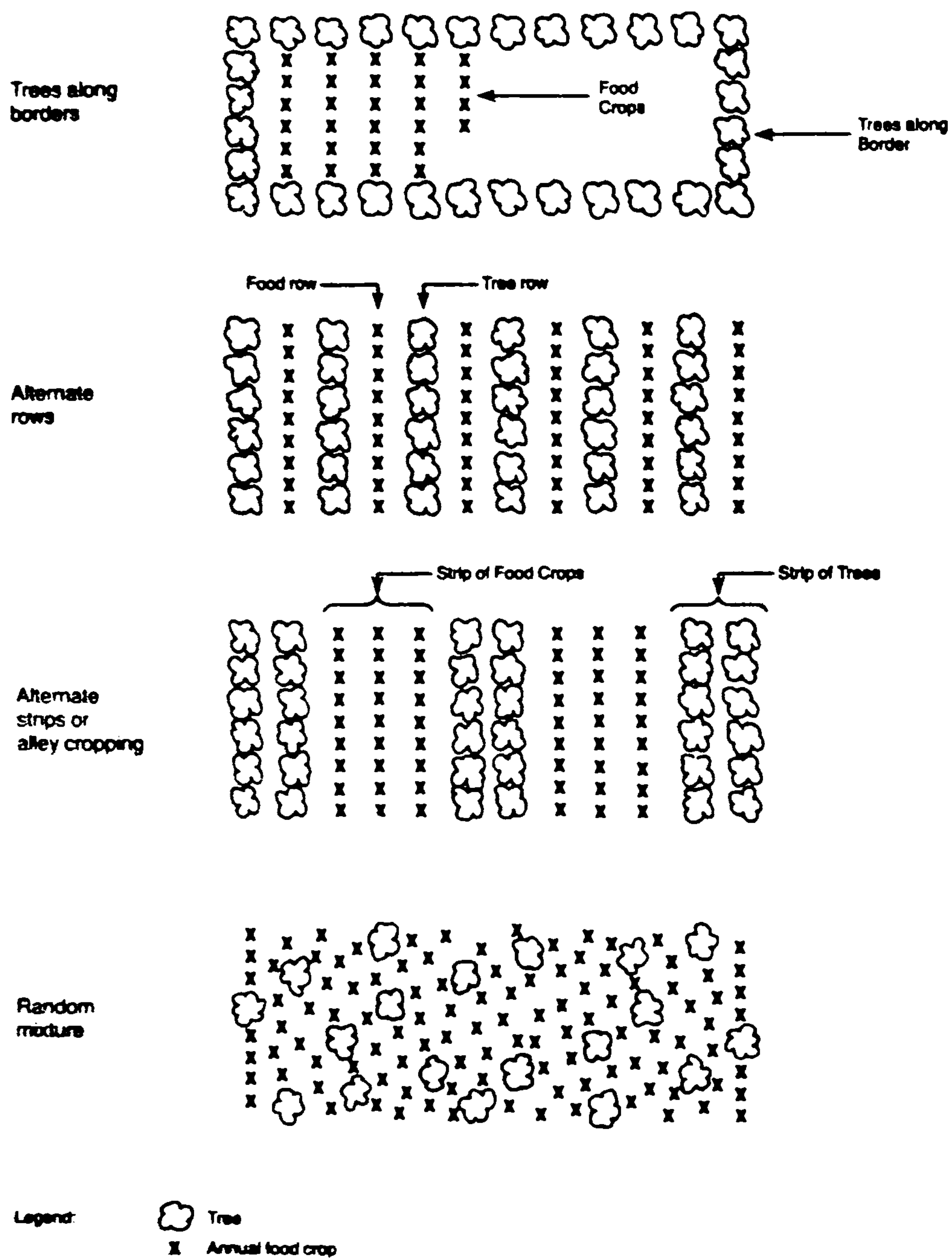


Figure 4.1 Spatial Arrangements of Crops in Agroforestry

As soil moisture is the limiting factor in dry uplands, selection of agricultural crops which can be harvested within 80 to 100 days have to be preferred in early years. After the tree crop grows up, shade-bearing tuber crops can be grown in the interspace. The short duration highland paddy, ragi, pulses, til, etc., can be grown in the first year and if possible in the second year of formation. Crops such as watermelon, climbing beans, sweet potato, yam, tapioca, turmeric, ginger, pineapple, spinegourd, etc., can be grown under the shade with proper manipulation of light regime.

2.6 Extension and Inputs

Decision taking about choice of tree species and crops will be a mutual task of the beneficiary and Project personnel. The role of the VFW will be that of a guide when the choice of tree species or crop is discussed. The Project will assist the selected beneficiaries with seedlings suitable for the land, seeds for the agricultural crop, fertilisers, pesticides and wages for soil preparation, planting and other operations in order to establish the plantation as well as raising of agricultural crops. The Project will provide funds for maintenance of the plantation during the first three years and also for raising of crops during the first few years, if possible, in addition to technical support. Protection of plantations will be the beneficiaries responsibility. Similarly, replanting is also their responsibility through savings or credit assistance.

2.7 Issue of Tree Patta

The beneficiaries will be provided with Tree Patta or given the type of recognition being granted to ERRP beneficiaries. While granting Tree Pattas to beneficiaries, it should be borne in mind that the rights conferred on beneficiaries are balanced by obligations and the legal rights conferred on them are actionable under law. The rights of the beneficiaries must be declared openly and the Tree Pattas distributed as soon as the planting in the first year has taken place.

2.8 Work Opportunities

The landless poor beneficiaries cannot wait for a long time period for reaping the benefits/harvests from the tree component. The problem is that the turnover time in such plantation activities is seldom less than 7 - 10 years. Therefore, income generation for these beneficiaries must be given a high priority. As one of the important aims of this component is to increase the income of the beneficiaries, the employment generated by this activity must go to the beneficiary and his family even if this means that some silvicultural operations such as digging of pits, planting,etc.,are going to be prolonged. Efforts should also be made to generate other work and income opportunities for the beneficiary through other Project activities such as raising of seedlings in nurseries, watch and ward of the woodlots raised in the neighbourhood, etc., to sustain their interest and enhance the participation during the gestation period before the trees are suitable for cutting and harvesting.

2.9 Follow-up Action

This activity requires a high level of follow-up action at all stages of its implementation which would increase the workload of the Project personnel, but are deemed essential. Similarly, intensive principles of tree management to achieve a self-sustaining forestry activity is equally important. The importance of building up competence among beneficiaries about forest farming for such undertakings is crucial for the future development of self-reliant forestry in rural areas. Training and visit after the initial training session is an important feature to ensure this transfer of competence.

C. **FFRP in Tribal-Intensive Areas**

From the Project point of view,six of the 13 districts, viz., Koraput, Sambalpur, Kalahandi, Keonjhar, Sundergarh and Mayurbhanj are designated as tribal-intensive districts. In these districts this activity will be implemented with an emphasis on the tribals. In selected tribal villages all the landless tribal families are to be identified as

beneficiaries adopting a cluster approach. Here, suitable agro-silvicultural models are to be designed with appropriate land management systems after observing the local ecological and social conditions. One Village Forest Worker will be kept in charge of one new tribal village per year.

D. Crop Descriptions

The package of practices pertaining to some crops which have been considered to be important in agro-silviculture are presented in Annex 4.1. Although there are a large number of crops which grow or could be grown, only the most important crops are described here. The description would be valid for any area with similar ecological conditions.

E. Plantation Costs

The norms for the two types of plantations - density and agroforestry - are given in Tables 4.1 and 4.2. Observations made under Section C of Chapter 3 also apply to these costs.

Table 4.1 Cost Estimate For FFRP Density Plantation
5000 plants/ha, 2m x 1m based on wage rate Rs. 10/day

	Item of Work	Unit	No./ha	Unit cost Rs.	Cost/ha Rs.
A.	PREPLANTING YEAR				
1.	Survey and demarcation	MD	2	10	20
2.	Clearance of site	MD	2	10	20
3.	Burning of debris	MD	2	10	20
4.	Alignment and staking	MD	5	10	50
5.	Cost of stakes, ropes	L.S.	-	-	5
6.	Cost of implements	L.S.	-	-	45
7.	Digging of pits 45 cms. cube (February/May)	MD	250	10	2500
Total			261		2660
B.	FIRST YEAR PLANTING ACTIVITIES				
8.	Carriage of seedling from nursery to planting site	MD	15	10	150
9.	Scooping of pits application of basal dose of fertiliser (NPK-30g) and insecticides (Aldrin 5g)	MD	20	10	200
10.	Planting operation (June/July)	MD	50	10	500
11.	Intensive soil working over half meter radius, uprooting the weed growth, casualty replacement 5% and application of 2nd dose of fertiliser (NPK-20gms) (August/September)	MD	94	10	940
12.	Cost of fertiliser (NPK)	Kg	250		
	Insecticide	Kg	25		940

13.	Dry grass cutting, fire tracing and weeding (October/November)	MD	5	10	50
Total			184 MD		2780
C.	SECOND YEAR: POST PLANTING ACTIVITIES				
14.	Replacement of casualty 20% Replacement including pitting application of basal dose (30 gms and insecticides 5 gms) short carriage and planting (June/July)	MD	50	10	500
15.	Soil working over 1/2m. radius uprooting weed growth, application of manure (NPK) 30 gms. (June)	MD	60	10	600
16.	Cost of material				
	NPK	Kg	150		
	Aldrin	Kg	5		460
Total			110 MD		1560
D.	THIRD YEAR: POST PLANTING ACTIVITIES				
17.	Deep soil working, weeding and pruning (August/September)	MD	50	10	500
Total for 3 years					7500

Table 4.2: Cost Estimate For FFRP. AGROFORESTRY 2500 plants/ha. 4m-1m-1m-4m, within rows 1m x 1m, based on wage rate Rs. 10/day.

	Item of Work	Unit	No./ha	Unit Cost Rs.	Cost/ha Rs.
A.	PREPLANTING YEAR				
1.	Survey and demarcation	MD	2	10	20
2.	Clearance of site	MD	2	10	20
3.	Burning of debris	MD	2	10	20
4.	Alignment and staking	MD	4	10	40
5.	Cost of stakes, ropes	L.S.	-	-	5
6.	Cost of implements	L.S.	-	-	45
7.	Digging of pits 45 cms. cube (February/May)	MD	200	10	2000
Total			210		2150
B.	FIRST YEAR: PLANTING ACTIVITIES				
8.	Carriage of seedling from nursery to planting site	MD	12	10	120
9.	Scooping of pits application of basal dose of fertiliser (NPK-30g) and insecticide (Aldrin 5g)	MD	16	10	160

10.	Planting operation (June/July)	MD	40	10	400
11.	Intensive soil working over half meter radius, uprooting the weed growth, casualty replacement 5% and application of 2nd dose of fertiliser (NPK-20 gms) (August/September)	MD	80	10	800
12.	Cost of fertiliser (NPK) Insecticide	Kg Kg	200 20		750
13.	Dry grass cutting, fire tracing and weeding (October/November)	MD	5	10	50
Total			153 MD		2280
C.	SECOND YEAR: POST PLANTING ACTIVITIES				
14.	Replacement of casualty 20% Replacement including pitting, application of basal dose (30 gms), short carriage and planting (June/July)	MD	40	10	400
15.	Soil working over 1/2m radius, uprooting weed growth, application of manure (NPK) 30 gms. (June)	MD	48	10	480
16.	Cost of material NPK Aldrin	 Kg Kg	 120 4		340
Total			88 MD		1220
D.	THIRD YEAR: POST PLANTING ACTIVITIES				
17.	Deep soil working, weeding and pruning (August/September)	MD	40	10	400
	Total for 3 years				6050
	L.S. for agriculture for 3 years				3950
	Grand Total				10000

CHAPTER 5

VILLAGE RESOURCE PLANNING

*(H. Egneus, M. Chakraborty, S. Behera, B. Rautray)**

A. Micro Level Planning

1. Introduction

1.1 The first and most crucial step to be taken by the Project before any activity is started is to find a village/community where the conditions are such that there is an identified need for social forestry and where the physical, biological and human resources needed for a successful activity exist.

There are a number of ways by which a future Project village could be identified. In the Project, a model of identification based on a special Village Resource Plan has been developed. This is a planning instrument which in reality is a minor feasibility study and which, if performed in a proper manner, ensures success of the Project in a village.

1.2 Before initiating social forestry activity in a rural area one has to determine if the activity in the specific area is:

- Socially acceptable, i.e., the social aims of the Project can be fulfilled
- Ecologically acceptable, i.e., there should be no long or short term negative effects of the plantation activity
- Politically acceptable
- Technically and institutionally feasible to implement
- Commercially viable.

If the resource and need inventory shows that these five conditions exist, the chances of the Project achieving its aims in that village increases. Whether the Project finally succeeds or not will, however, always in the end be decided by the relation and interaction between the Project personnel and the villagers. Thus, the resource and need inventory should not be seen as a substitute for the long-term motivatory/training relationship which must be built up between the Village Forest Worker and the population in individual villages.

1.3 It must be understood that the purpose of the grass-root level planning is to:

- Identify the demand of the specific communities for various products of social forestry
- Determine the present supply of those products and hence the shortfall for the various social groups in the community
- Ascertain the willingness and the capacity of the individuals and the community to engage in social forestry
- Feed all this information upwards in the social forestry plan
- Devise a plan of action together with the villagers which is acceptable to the community within the resource constraints of the Project.

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* This Chapter is based on two documents prepared by the Social Forestry Project, Orissa: "Microlevel Planning for Social Forestry" and "Village Resource Plan".

1.4 Grass-root level planning must be based on the fact that the needs of the rural population is the driving force for social forestry and that the role of the implementor is to enable those needs to be met as efficiently and as effectively as possible. To be able to implement and work with the Village Resource Plan, all Project personnel must be trained in using the inventory and also be told where and how the secondary information about a village can be collected or found. The practical follow-through of the planning process is based on the basic data about a village that can be found in the official files and statistical sources, and can be retrieved by the Deputy Director and fed back to the Social Forestry Supervisors and VFWs. If this is not done, one important facet of the use of the resource inventory will be omitted.

It is assumed that the Project personnel involved in resource inventories are trained in silvicultural and social forestry aspects and well versed in the social and ecological aims of the Project. Information is collected through questionnaires which have been designed after conducting a number of exercises in the field and visiting a large number of official organisations and Project villages.

1.5 Three questionnaire proformae are used for collecting data. These are:

A resource inventory (Annex 5.1)

A household schedule on needs and demands (Annex 5.2)

A group schedule on needs and demands (Annex 5.3)

Together they form the Village Resource Plan.

The questionnaires are to be filled in carefully and new facets and information could be added or deducted depending on the situation in the village and the circumstances under which the study is undertaken.

2. Collection of Data

2.1 Data can be collected in many different ways. In the context of the village resource plan, several modes of data collection will have to be used. No single source, written, oral, observation, or questionnaire, should be regarded as sufficient in finding out the feasibility of starting the programme. Therefore, a combination of approaches and procedures must be used in order to collect the relevant data.

The major methods which must be used are:

(a) Collection of data on physical issues, population composition and infrastructural facilities. These data are collected from official sources

(b) Collection of village maps from official sources

(c) Observational data collection, i.e., field and village visits where data on physical/biological/human/village resources are collected by observations and visits

(d) Household interviews of selected families or interviews with specifically selected village people

(e) Group interviews with different factions of the population of the investigated village. Here groups with different social status,belonging to different organisations, and women should be interviewed

(f) Collection of data at village meetings.

2.2 Stages in the process of micro level planning

(a) First get the names of proposed villages and find out the police station (P.S.), tahasil and location code number of the village in the 1981 (or latest) census book.

(b) Collect the most recent data about the village from the different offices and published sources (Table 5.1). The data should be collected as provided in the resource inventory (Para 3). After collection of the data it should be put in the resource inventory schedule.

Table 5.1 Data To Be Collected From Secondary Sources

Type of data	Where to collect
Population, sex, caste, education, occupation and infrastructure facilities	Census office, Bhubaneshwar. It would be better if the printed books on 1981/or latest census are kept in the office of the Deputy Director. Some information can be collected from BDO office.
Types of land	R.I. Office or Tahsildar Office
Village Revenue Map	District Collectorate or, Tahsildar Office or, Map Survey Office, Cuttack.
Land-use	Agricultural Extension Officer (A.E.O.)
On-going programmes and material status of the village	Block Development Officer and Village Level Worker

(c) After the collection of secondary data go to the specific village.

3. The Resource Inventory

The resource inventory is given in Annex 5.1 and the numbers referred below are the actual numbers of the questions in the schedule.

3.1 General Information

To form an idea about the village and its inhabitants some general information must be collected. Information about the communication facilities, post office, nearest town, police station, population (both people and cattle), population composition, etc., should be collected. These details are treated in questions 1.1 to 1.11 (Annex 5.1).

Most of these data can and should be collected outside the village and taken from official sources. The data must, however, be checked and confirmed during village visits.

3.2 Physical Resources or Land Resources

One of the most important factors in the Social Forestry Project is the availability of land for plantation. If there is no surplus land for plantation in the village, then the question of resource and need planning does not arise. It is not only the information about the availability of land, but type of land and location which is also important. Information about issues such as rights of the villagers over the land, any encroachment or disputed land, productivity of the land, etc., is equally important to

collect as this information will be the basis for the general agreement which must be made with the villagers on the plans for land use; otherwise problems concerning the rights of the use of land might arise later. Information about the total land area available for tree planting activities will be decided by this. Information on topographic/soil or climatic factors is needed as these factors will partly determine whether it is feasible to start a plantation activity and indicate the survival and growth of the trees. The detailed information to be collected is found in questions 2.1 to 2.6.

3.3 Biological Resources

Survey of biological resources in the village is interesting from several angles; three will be considered here:

1. To find out if there are any tree species which have been grown earlier by the villagers or which are specially suited to the environmental conditions at the project site, or which produce amenities which are in special demand by the villagers

2. To find out if seeds or seedlings of the species in demand can be supplied in sufficient quantity and at a reasonable cost. The supply of seeds is an aspect which is frequently over-looked when planning for a plantation activity and it must be ascertained that sufficient seed of the right origin and quality can be obtained at the right time

3. The pressure on land from the animal population of the village must be determined. This is important in order to assess the need for special protective measures and/or whether there will be any problems with grazing in the plantations. Plants used as live hedges for protection of plantations can also be identified. The detailed questions have been put in 3.1 to 3.6.

3.4 Availability of Material and Equipment

During the plantation and nursery activities, different types of equipment, viz., ploughs or tractors,bullock carts for transportation, spades, pumps for watering, etc., are needed. If these materials are available in the village either free of cost or on hire basis they should be utilised instead of getting the material from outside the village (see question 3.6).

3.5 Water Resources

Water is needed during the operational stage. It is important to know the sources of water available for the nursery activity and sometimes at the plantation site. The survey of the water resources is treated in question 4.1.

3.6 Human Resources

The most important single factor for carrying out any programme is based on an involvement of the whole community and participation of the villagers. It is therefore necessary to collect information about the people living in the village in several areas such as:

Numbers of male/female by age groups

Availability of labour (skilled and unskilled) in the village, both male and female

Educational status

The presence of different organisations in the village

The leadership pattern in the village.

The main reason for collecting these data is that they will help the extension worker in forming a picture of the general status of the village. This is essential in order to make a social assessment of the village.

The data will also form the basis for the motivatory and training work with the villagers. Identification of other agencies which could be partners and participants in nursery work, planting work, training, marketing, motivatory work etc. is very important.

One important objective of social forestry programme is to create employment. It is therefore important to collect information about the availability of labour both male and female, and find out if they can be engaged in different social forestry activities.

The local NGOs, e.g., Youth Clubs, Mahila Samitis and Mandals and others must be engaged in the social forestry programme as they can help in the training and motivation programme. The detailed questions on these issues are contained in serial 5.1 to 5.7.

3.7 Village Resources

The infrastructure facilities available in the village will in many cases be important determinants of Project implementation. Such village resources are communication facilities, educational and health institutions, industrial/marketing and banking institutions, etc., in the village. These are treated in questions 6.1 to 6.9.

4. The Household and Group Schedules

The household and group schedules are given in Annexes 5.2 and 5.3 and the numbers referred below are the actual numbers of the questions in the schedules.

4.1 Introduction

The resource inventory is concerned with collecting physical data. The household and group schedules consists of two special questionnaires. These proformae are to be used together with special checklists, to find the opinion of the villagers on the demand of different forest products, what their needs are and how they conceive their participation if the Project comes to their village.

This means that in comparison with the resource inventory more "soft" data will have to be collected for the schedules and the mode of data collection will have to be radically different. For this need/demand inventory a dialogue must be opened with the villagers and, from the interview situation, the VFW will have to assess the extent of the possible participation.

4.2 Socio-economic conditions in the village

In the first part of the two questionnaires information on the social structure and economic condition of the village is collected. Caste structure, communal relations and cooperation, inter-caste relationship, etc., are important to the villagers themselves and will be important in deciding how the village will react to participation and management of the plantations.

All efforts must be made during the planning stage to find out if there are any open or hidden conflicts in the village. In case of an identified conflict, this must be seen as a warning sign for undertaking any community enterprise.

As the social forestry programme aims at development of the poorer sections of the community, it is important to collect information on the economic condition of the villagers, the number of landless villagers and marginal and small farmers, so that specific target groups can be identified and approached.

4.3 Needs and Demands of the People

The needs of the people for produce which can be obtained through the Social Forestry Project must be determined. The first step is to determine the major products and benefits which are required, e.g., fuel, fodder, timber and employment for the different groups. The demand should be compared with the subjectively assessed supply situation to determine priorities and the size of the programme needed. At the same time the interest of the different groups should be found out. The details of the information to be collected are contained in questions 2.1 to 2.6.

4.4 Benefits and Participation

In any rural development programme the direct benefits are often easy to identify. But there are a number of indirect or not easily observed benefits such as improvement of environment, re-introduction of lost plants of religious or social importance, etc. The use of an existing wasteland will directly give real benefits to the village. But if the products obtained from the plantations are not distributed or given to all people of the village, the chances of participation of people and their long term interest will be uncertain. Therefore, it is important to find out how and in what form the people want to participate, as this, to a large degree, will solve many of the inbuilt conflicts which are present when a common property resource is taken into use. One must find out if the villagers agree that the suggested wasteland should be taken up and whether they have any doubts about this. One also has to find out in exactly what way they can participate. Without a commitment to protection, management and replaning after harvest, the Project cannot be successful. If the Project in any way goes against the will of the people, it is foredoomed.

One has to find out what types of trees the villagers want in the plantation. Issues related to sharing of produce and how this should be done must be found out. Distribution models must be discussed and the agreements between the Project and the village must be made clear to everybody. Such issues as these are treated in questions 3.1 to 3.6 and also found in the guidelines to conduct the interviews.

4.5 Administrative/participatory and Training Issues

The general administrative system, the decision making processes and the distributive system of the community property are some important issues which must be considered as the villagers in future are going to manage and consume the products.

Generally, training and motivation programmes will have to be arranged to show the villagers how to manage and look after the plantation. Another facet of the administrative system is what support the villagers feel they need for participation. Here the need for special support in the form of training, material, man-power, legal help, etc., should be identified. These issues are treated in questions 3.8 to 3.14.

5. Collection of Data at the Village Level

5.1 The Village Visits

Before going to the village, the person entrusted with collection of data must have a copy of the village resource plan proforma containing the three questionnaires, should bring along the checklists and the guidelines presented in Annex 5.4 or the "Manual for Village Resource Planning".

As the social forestry programme is an enabling process rather than a directing one, an open-minded attitude, willingness to listen and to encourage discussion are the three most important investigative characters when undertaking the village survey.

The extension worker has to be careful in his approach to the people; among many things he should remember that the villagers might not be able to follow sophisticated language and complicated questions. It might, therefore, be necessary to try to ask the villagers in the local dialects and collect information according to the local customs. If

the extension worker is not from the area he works in, he must consult a NGO or his superiors on the best method of approach.

Suggestions on how to conduct interviews are given in the Annex 5.4.

6. Time for Preparing the Micro Plan

The village work survey will take two to three days depending upon the size of the village. If it is a large village (more than 100 households) it may take three days. Writing the final report and preparing an action plan should ordinarily take one or two days.

Thus, the total time spent on preparing a micro plan for one village should not exceed one week. Considering the new yearly targets, i.e., 2 new villages/VFW per year and a 50% discard in selection of villages, not more than four weeks would be spent on micro-planning. Thus will not put any additional burden on the VFW. One could even argue that a good microplan will make much of the future work in a selected village an easier task.

7. Training Programme for the VFWs in Micro Level Planning

It is realised that micro level planning is very important before initiating social forestry programme in a new village. For the identification of an ideal village and successful implementation of the programme, the VFW, who is the grass-root level worker, has got the following important jobs:

a) Identifying the new village

b) Collection of secondary data on the new village, motivational campaign

c) Conducting the feasibility study

d) Organising village meetings and conducting the group and household survey on the needs and demands of the villagers

e) Getting the cooperation and coordination of villagers, local NGOs and other agencies for starting the programme.

It is, therefore, very important that the VFW should have the knowledge, skills and technique for conducting the grassroot level planning. For this a one day training schedule has been suggested in Chapter 11.

B. Resource Inventory - Household Schedule and Group Schedule

The detailed forms for Resource Inventory, Household Schedule and Group Schedule are contained in Annexes 5.1, 5.2 and 5.3.

Details of how to collect information in the field, etc., has been furnished in Annex 5.4.

CHAPTER 6

VILLAGE FOREST COMMITTEE AND JOINT MANAGEMENT PLAN

(B.K. Swain, H. Egneus, L.K. Patnaik)

A. Village Forest Committee

1. Introduction

The Social Forestry Project in Orissa has two management "instruments" which are the foundation for implementing the aims of the Project. These instruments are the Village Forest Committee (VFC) and the Joint Management Plan (JMP).

The Village Forest Committee is the organisation collaborating with the Project officials at the village level.

The Joint Management Plan is the document through which the relations between the Project and the Village is manisfested and regulated.

It goes without saying that if the VFC is non-functional and the JMP is not adhered to, the Project work in a village has little chance of success. The Village Forest Worker (VFW), the Social Forestry Supervisor (SFS) and the Deputy Director of social forestry in a district are responsible for constituting the VFC and compiling the JMP with the active participation and cooperation of the members of the VFC. This work ought to be done through detailed consultation and dialogue with the villagers in meetings arranged by the VFW.

Records of these meetings should be maintained. The VFC must ideally be set up several months before any work of practical nature (nursey work, pitting, etc.) is started in the village. Training of VFC members and dissemination of general information about the Project should precede the nursery and planting work. The Deputy Director/SFS must visit the village between the formation of the VFC and the start of the work and should verify/record the readiness of the villagers to participate in the social forestry operations.

2. Formation of Village Forest Committee

The formation of VFC must take place several months before any practical work in the village is started. The following procedure has to be followed in constituting a Village Forest Committee:

i) The procedure for selecting a village has already been detailed in Chapter 5. After the selection of the village, the VFW and SFS would call for a meeting of the villagers. They must ensure that male and female members of all groups, castes and representatives from all hamlets attend the meeting. In this general meeting the social forestry supervisor would explain to the villagers the Project activities, and the benefits which can be derived from tree plantations. He should present what has been found out about the needs of the people for forest produce, and how social forestry could be one way of meeting some of these needs. They should also discuss the responsibilities of the villagers and their role in management and protection of the village forest. The Village Forest Rules should be discussed in detail. The formation of the VFC, its role and structure, its constitution under the relevant sections of the Orissa Village Forest Rules and its duties and responsibilities should be made clear to all participants. The villagers shall thus be informed of the detailed structure of the VFC such as total number of members, representatives of the SC/ST, women and landless people. The VFC should in no case be formed during this first meeting. A two way communication between Project personnel and the villagers must be aimed at. The VFW/SFS must not be seen as giving orders to villagers at this meeting. Different views and critical opinions should be recorded and considered by the VFW/SFS. The date for another meeting should be fixed and also for the election of the Village Forest Committee members of the village.

ii) Before the next meeting and before the election of the Village Forest Committee members, the VFW would visit the village, identify the aspiring candidates for the Village Forest Committee and discuss with them individually regarding their roles, duties and responsibilities as committee members. The VFW should answer all questions, clarify doubts and ambiguities and make clear to the prospective member that the mandate given to him should not be used to gain any short term benefits.

iii) The VFW should intimate the date of meeting for election of the members of the Village Forest Committee to the villagers and also invite officials such as the forester (territorial), the revenue inspector and the village level worker to attend the meeting.

iv) The social forestry supervisor assisted by the VFW would conduct the meeting for electing the members. The members should be elected by all households of the village. The representation of women and scheduled caste/scheduled tribe members in the elected body should be ensured. After the formation of the Village Forest Committee, it would elect its chairman, treasurer, secretary, etc. The resolution of the meeting shall be recorded in a Village Forest Committee Register and signed by all the members of the village present in the meeting.

3. Role of the Village Forest Committee

The role of the Village Forest Committee can be summarised as follows:

In collaboration with the VFW select the site and demarcate the area for establishing the community plantation and decide the species to be planted

Prepare a JMP for the demarcated area in cooperation with the VFW

Allocate works and responsibilities as regards plantation and management operations and ensure appropriate payment to workers

Participate in the programme and remain in overall charge of the work. Create a sense of trusteeship and social responsibility

Identify poor, landless, assetless, headloaders and ensure that they are given priority in employment

Participate in the training of villagers and teach them about the needs and benefits of forestry activities

Motivate the villagers to control their cattle,e.g., by providing cattle herders with fodder, encouraging stall feeding and describing the benefits of protecting forests

Explain the provisions of Village Forest Rules to the villagers

Take over the protection and management of the village woodlots

Cooperate with and use NGO's (registered or non-registered) for creating and managing village woodlots

Form subcommittees with special mandates such as undertaking new plantations, nursery management and marketing of surplus produce

Identify FFRP beneficiaries if this component is included in the village plan

Participate in the economic development of the village by introducing important income-generating activities.

4. <u>Responsibilities of Village Forest Committee</u>

The Village Forest Committee is the counterpart of the social forestry staff in the village. It is a statutory body formed under the provisions of the Village Forest Rules and has specific duties and responsibilities as detailed below. These should be read alongside the relevant provisions in the Village Forest Rules:

a) Meetings of the VFC shall be held and conducted as per guidelines in Annex 6.1

b) The village forest worker, together with the VFC, shall select the site and demarcate the area to be used for community plantation

c) The VFC shall in consultation with the villagers decide about the species to be planted. However, the village forest worker will provide the members of the VFC all technical information regarding the suitability of various species with regard to the soil and climatic factors of the selected site

d) The nursery site will be selected with the help of the VFC and the organisation which may take up the nursery work will be identified by it through a resolution passed in the committee. Different types of decentralised nurseries are organised and set up by the village forest worker

e) The VFC shall prepare the joint management plan with the assistance of the VFW. Both the village forest worker and the Village Forest Committee shall continuously follow-up issues agreed upon in the JMP and in case of problems call for a mutual meeting to sort out issues

f) The VFC shall allocate work and responsibilities among its members and other villagers with regard to the community plantation and their future management. It shall identify the poor and the landless individuals and ensure that they are given priority in employment. The employment opportunities generated in the Project, albeit of seasonal character, are considerable and the committee will see to it that the weaker sections and women constitute a fair proportion of the labour force employed by it in the Project

g) While the Project would provide for a number of amenities such as first-aid kit, shelters from the sun and drinking water at the working site, the VFC would be in overall charge and ensure their proper use and upkeep

h) The VFC shall help in identifying FFRP beneficiaries and also participate in organising the farm forestry activities in the village

i) The protection and proper maintenance of the plantation is the responsibility of the village community. At the commencement of the plantation activity, the VFC will arrange a meeting of the villagers where the issue of protection would be discussed. The VFW would present different modes of protection - physical, biological and social - and give the pros and cons of each mode. The VFW would also make it clear to the villagers and the VFC that the Project would provide protection funds only under exceptional circumstances and the financial and physical resources have to be found within the community. Since the biggest hazard to the plantation is from domestic cattle, the VFC should discuss ways and means of promoting stall feeding by villagers, rotational opening and closure of areas available for grazing and other methods of improving and increasing fodder resources of the village. The VFW should also bring to the notice of the VFC the punitive sections of the Cattle Tresspass Act and the Orissa Forest (Grazing of Cattle) Rules, 1980

j) The Project provides that all village plantations (village woodlots) would be transferred to the VFC not later than the end of the second year by which time the beating up operations (replacement of failures) will have been completed. There is also a provision that such plantations would be declared "village forest" under the relevant Act. Once the plantations are declared as village forests, all legal

documents relating to such declarations shall be put up in some prominent place in the village for wide publicity among the villagers . The VFC shall keep copies of the documents

k) The Project provides that when all village plantations are transferred to the VFC it will be the responsibility of the VFC to undertake all management operations in the village forests. The Project would provide funds for certain operations like thinning, pruning etc., only. The VFC would continue to receive all necessary technical support and guidance from the VFW and other Project staff, particularly in the fields of training and extension, silviculture, harvesting and the like

l) The Village Forest Committee can form sub-committees with special mandates. One of the basic aims of the Project is to supply villagers with scarce resources for their personal consumption. The size of the community plantations are small, generally not larger than 10 - 20 hectares in one village. If personal consumption of the produce from the plantation is the priority of the villagers there will, only in exceptional cases, be a surplus production from the plantations. But it is possible that the villagers in a meeting decide that the produce should be sold. In such cases a marketing subcommittee should be set up by the VFC. This should be done only after a decision to "go commercial" has been taken and when an agreement has been reached among the villagers about how to share the financial benefits of this process. A marketing sub-committee should not consist of more than 3-4 persons who would be given special training by project persommel on issues related to marketing of produce such as getting permits for felling and transport, and any legal, commercial or practical issue which must be considered in a marketing situation. The VFW would be in charge of setting up the special training facilities when requested by the VFC. The committee should be able to contact the Deputy Director and the SFS to get an overview of the marketing situation and to take necessary steps for the marketing of the surplus. The final responsibility for all actions of the marketing sub-committee would be that of the VFC of which the farmer is only an advisory body. The marketing sub-committee can also be entrusted with the task of preparing bankable projects for reforestation and/or new plantations with the help of the Project staff

m) The VFC would ensure that an equitable distribution of produce and other benefits from the plantation takes place among all villagers, giving preference to the requirement of the weaker section of the community. Decisions on distribution should be taken in a meeting arranged by the VFC where all factions of the village are present

n) A work-plan containing different management steps and forestry activities to be initiated during each year would be prepared by the VFC with the help of Project personnel. The work-plan would spell out, why, when, where, and by whom a specific activity (training, village visits, village meetings, committee work, soil working, thinning, harvesting, distribution of benefits,replanting, establishment of new plantations, etc.) is to be undertaken. The work-plan should be used by the VFC as an instrument for closer cooperation with the VFW, SFS and other appropriate Project personnel

o) The VFC in cooperation with the VFW would set up an information system such as a notice board or a bill-board at some prominent place in the village through which villagers may be kept informed of the progress of the Project and of all important decisions in respect of various activities. The VFC should convene annual meetings of the villagers for discussing the progress and problems of the project. Such meetings should, if possible be combined with local festivals or accompanied with cultural performance like dances/dramas or with the screening of films on social or environmental issues. A record of the attendance at these meetings in the form of signatures or thumb impressions of the participants should be kept with the VFC

p) The VFC would demonstrate and promote the use of energy saving devices such as improved stoves ("chullas"), solar cookers, bio-gas plants etc., in cooperation and coordination with OREDA.

B. The Joint Management Plan

1. Introduction

The Joint Management Plan (JMP) is an agreement between the Social Forestry Project and the village. It constitutes the instrument for the execution of the Project in the village. It has the status of a legal document and defines the legal rights of the community to the resources referred to in the plan as well as the obligations and responsibilities of the Project staff and the village. Thus the preparation of the JMP is crucial to achieving the aims and objectives of the Project. The JMP is drawn up and signed by the SFS and the chairman of the VFC in both Oriya and English versions. A copy of the signed JMP is retained in the village by the VFC. The other copy is kept by the VFW. The JMP should be signed as early as possible but not later than 31st of May.

The JMP, among other things, deals with:

- Decisions arrived regarding species to be planted and for what purpose
- Details of employment of village labour for site preparation, pitting, planting and weeding, etc.
- Methods of protection of the community plantation
- Recognition that the products from the community plantation would be the property of the villagers, ensuring that the requirements of the weaker sections of the community get preference and that the VFC would be responsible for the distribution
- Definition of legal rights of the community to the resources referred to in the Plan
- Formation of sub-committees for special mandates and their respective responsibilities
- Mode of distribution of the resources and other benefits resulting from the village woodlot.

When the JMP has been signed a community meeting of the entire village should be arranged by the VFW and the VFC. At this meeting the important provisions, rights and obligations contained in the JMP would be read out and explained to the villagers. This meeting will also be the starting point for the actual training and implementation of the Project in the village. Time and place must be chosen in such a manner that women and children can participate.

At this meeting a frank and open discussion must be allowed and any criticism or opposition to the contents of the JMP should be met by effecting necessary modifications so that the project receives whole-hearted support from all sections of the village community.

2. Joint Management Plan

The Joint Management Plan is given in Annex 6.2. It consists of four parts. The first part is a summary of the existing resources in the village, and is compiled from the resource inventory discussed in Chapter 5.

The second part treats the issues connected with the selection of plantation site, component and species. The decisions made by the VFC in cooperation with villagers and the VFW/SFS form the basis for the proposals. The very important issue of cattle grazing is dealt with in detail, since in many cases the land selected for plantation may be common grazing land. Alternatives to the lost grazing land are specified here. If it is

decided to increase the number of fodder trees, or make some special arrangements for fodder grasses, it finds a mention here.

In the third part, the technical aspects of nursery and plantation establishment are taken up along with the issues related to employment of workers and their working conditions.

The last and fourth part deals with the administrative, legal and management aspects of the Project.

CHAPTER 7

NON-GOVERNMENTAL ORGANISATIONS AND SOCIAL FORESTRY PROGRAMMES

(*S.S. Das*)

A. General

1. Introduction

In Orissa forest and environmental degradation is proceeding at a fast pace. Even though attempts are being made at Government level to halt this process, it is apprehended that this process may more than offset the efforts made to reverse it. It is evident that without massive participation of people in the afforestation effort the continuing cycle of land degradation and impoverishment of villages cannot be checked.

2. Role of the NGOs in Social Forestry

a) It is necessary to explore all possible methods to enlist this participation. It is recognised that NGOs could act as agents for obtaining peoples' participation and convert the social forestry programme into a peoples' movement.

The Project lays great stress on encouraging and using NGOs in a variety of social forestry activities. To begin with, it recommends that at least one development block be selected in which total responsibility for the social forestry programme be entrusted to them as a test case.

b) Non-governmental organisations interested in social forestry programmes can be associated in many facets of the Project. These are:

1. Participatory

Spreading environmental awareness

Motivating people towards the Project

Organising protection and maintenance of the plantations by the villagers

Training of the villagers on various aspects of the Project, including management of common property resources.

2. Forestry

Choice of species

Raising planting stock for various components of the Project

Farm forestry

Raising plantations

Entire package of operations in a social forestry component.

The most important task is to identify the NGOs who are interested in social forestry and those that can be easily motivated to participate in the programme. After assessing organisational efficiency and credibility of NGOs interested in the activities listed above, and after imparting intensive training in both routine and technical matters, they may be invited to take over some or all of these activities. Professional NGOs may be involved in carrying out mass education campaigns in clusters of villages and Blocks to increase awareness of the need for social forestry.

3. Profile of NGOs in Orissa

3.1 According to a recent "Directory of Voluntary Organisations in Orissa" compiled by the Centre for Youth and Social Development, Bhubaneshwar, there are more than three hundred major non-government organisations working in different places of the State in diversified fields of development, social welfare, environmental awareness and promotion. According to this Directory about a third of these NGOs are engaged in the field of environmental protection and development alone. The compilers of the above Directory admit that the list compiled by them is not exhaustive. A number of Mahila Samitis and Youth Clubs associated with one social forestry operation or the other do not find place in the list. Again, there are a number of organisations at the village level which do not have a formal name or which have not been formally constituted under any law. These organisations are also engaged in protecting, preserving and developing forests within their village limits or adjacent to their villages. Thus a large number of NGOs are already associated with environmental protection and various aspects of social forestry.

3.2 Many of the above NGOs are registered under the Societies Registration Act. Some have also been registered under the Foreign Contribution Regulation Act, 1976. But as has already been mentioned, most organisations working at the village level have not been formally constituted/registered under any law.

3.3 Bulk of the NGOs are also engaged in educational, cultural and sports programmes. The usual programmes which have received attention of NGOs are - culture and sports, education, environment, social welfare, tribal development, socio-economic programmes, renewable energy and the like.

Most of the NGOs receive Central and/or state Government assistance for implementation of their programmes. Quite a few receive funds from foreign agencies like OXFAM, Community Aid Abroad, Swiss Aid, Switzerland Church, Action Aid, etc.

3.4 Some of the formally constituted larger NGOs are professionally operated with paid full time professional staff. But most of the NGOs, particularly those at the village level, operate through volunteers. The efficiency of the NGOs, particularly those at the Panchayat or village level, depends mainly on the sincerity and dedication of their members and volunteers. The other factors which contribute to the success of the NGOs are:

1) Characteristics of personal leadership

   a. Social, economic and educational status

   b. Experience

   c. Level of commitment to the cause, and

   d. Ability to enlist cooperation of the villagers.

2) Cooperation and involvement of villagers in the programme and absence of factionalism

3) Staff experience and training

4) Adequate technical, communication and funding support, and

5) Proper coordination and cooperation among various NGOs engaged in similar activities.

A recent study shows that cooperation among various NGOs appears to be rare and dismal. Jealousies and rivalries are clearly evident among NGOs working in the same area.

3.5 Credibility and Acceptability among Villagers

NGOs are more easily acceptable among villagers than any government agency as long as they maintain their autonomous character. NGOs do not ordinarily like government control. They prefer to have their own modalities of working. Government organised or controlled NGOs are usually looked upon with suspicion by villagers and with scorn by other NGOs. There is, however, no harm in any government agency initiating formation of NGOs for a particular programme provided such NGOs are allowed to enjoy autonomy in their working.

4. Involving NGOs with VFCs

NGOs often view VFCs as superfluous and a duplication of traditional village leaderships and informal village organisations. Most of these suspicions of NGOs appear to have arisen due to lack of communication between them and Project personnel. These apprehensions can be removed by involving important local NGOs at the time of discussion of Project strategies with the villagers before formation of the VFCs. If the NGOs have a proper understanding of these strategies it would be of great advantage to the Project as the NGOs can act as pressure groups in activating the VFCs and also in ensuring facilities and rights which the people need to exercise in the implementation of the Project.

It may be of advantage if at least one member of an important NGO working in the village is included as a member of the Village Forest Committee. Under the existing rules the "gram sasan" concerned may be persuaded to nominate one such person as a member of the VFC. This will help in eliminating conflicts between the VFCs and the NGO and may facilitate the work of the VFCs.

Wherever VFCs have already been formed the VFW and/or the SFS should discuss the provisions of the Project including Project strategies with important NGOs working in the area. If necessary the Deputy Director may also take up such discussions. Attempts should be made to co-opt important NGOs working in the village in VFC meetings.

B. Non-Governmental Organisations in Social Forestry Programmes

1. Selecting the NGOs for Social Forestry Work

1.1 As has been indicated earlier NGOs can participate in a variety of activities in the Project. The first and the foremost requirement of an NGO in this respect is its willingness to participate. Sometimes some NGOs are apathetic towards the Project as there is an information gap. Once this gap is bridged and the Project objectives, strategies and mode of operation are explained to the NGOs, particularly those at the village level, they readily agree to take up the jobs entrusted to them. There may be NGOs who, even after elaborate discussions and explanations, are not convinced about the effectiveness of the mode of operation of the Project and are critical of the Project itself. It will not be of any advantage to entrust any responsibility to such an NGO. Secondly, only willingness to participate in the Project is not enough. The NGO should be sincere in discharging its responsibility. Quality of leadership and experience are the other factors which should be looked into while selecting NGOs. Experience in environmental activities, however, is not very important as it is proposed to impart necessary training to the NGOs in the work with which it is proposed to entrust them.

1.2 The main purpose of entrusting any activity under the Project to an NGO is to involve local people in such activity. Therefore, the NGO selected should be able to work with the people of the locality and not in isolation with the help of its own staff. This can be ensured if the NGO has already worked in the village with any other project and is already enjoying the confidence of the villagers.

1.3 While choosing an NGO for a particular activity its capacity to handle such activity should be carefully judged. This will mainly depend on the strength and quality of the workers-professional staff or volunteers. Educational level of the workers should be

sufficient to enable them to interact intelligently with the Project officials. Economic and social status of the NGO functionaries, levels of commitment of the core staff, a sense of obligation and responsibility to the people and to the Project improve the NGO's capacity to handle a programme greatly.

Some NGOs, even smaller ones at the village level, would like to take up the entire package of operation in a social forestry component or even the entire programme in their areas of operation. The capacity of these NGOs to handle such jobs should be carefully evaluated before they are entrusted with the programmes. Their credibility, financial stability and willingness to adhere to financial discipline should be carefully studied along with other desirable features described in the preceding paragraph. At the initial stage only a few clearly dependable NGOs should be entrusted with jobs of this nature on an experimental basis. The scope of involvement of NGOs in such programmes may be extended depending on the extent of success of the experiment.

Initially the following responsibilities can be entrusted to selected NGOs:

1) Choice of species

2) Raising nursery stock

3) Farm forestry

4) Organising protection and maintenance of community plantations by the villagers.

There are other NGOs who are not directly involved in any environmental programme at present but specialise in training activities. These NGOs can be entrusted with responsibility of training villagers in various aspects of the Project and also generating environmental awareness and motivating people towards the Project.

The details and modalities of involvment of NGOs in various activities under the Project will be decided from time to time in consultation with field officers.

1.4 It has been mentioned earlier that in1988 only about 100 NGOs were engaged in environmental programmes. Another 50 NGOs specialised in educational and training activities. These hundred and fifty NGOs did not cover the entire area where social forestry programmes are operating. Very few NGOs work in the tribal areas. Tribal NGOs are few because of the low level of educational standards. Non-tribal NGOs are rarely accepted by tribal population, though there are a few exceptions. Further, it is envisaged that the message and impact of social forestry would spread into areas beyond those covered by both the phases of the Project. Thus it may be necessary to initiate formation of new NGOs. But while doing so one should be careful to see that the new NGOs have all the desirable features of an effective NGO and their autonomous character is not interfered with. Unnecessary control of NGOs and their excessive dependance on government agencies would make them lose their self respect and initiative and their credibility among the masses. Relationship between the existing village leadership and emerging village level NGOs is crucial to the latter's activity in the village. Similarly, the relationship between the NGOs and Project staff should be based on mutual respect.

1.5 Support to Participating NGOs

NGOs engaged in social forestry work would require a variety of supports from the Project. Important ones are:

1) Training

2) Technical advice and guidance

3) Financial support and incentives

4) Supply of materials.

Training of NGOs has been dealt in Chapter 11.

The NGOs would require constant visits of Project staff for advice and guidance not only in all technical matters, viz., nursery practice,raising and maintenance of plantation, etc., but also in the maintenance of registers and journals and drawing up of reports and returns. Such advice and guidance would be frequent at the initial stages but as NGOs gain experience only periodical visits at initial and closing stages of the operations entrusted to them should be sufficient. Frequency of such visits would depend on the efficiency of the NGOs and will be decided upon by the Deputy Director/SFS.

The NGOs should be provided with adequate financial support for the operations entrusted to them. Such support may be given in instalments depending on the progress of work, but the instalments should be so fixed that they do not hamper work. Disburesements should be timely and prompt. Financial incentives may also be given to NGOs entrusted with the responsibility of organising community participation in operations like farm forestry, protection and maintenance of community plantations, training of villagers and beneficiaries under various social forestry schemes, etc. The details of responsibilities to be entrusted and incentives to be given for each such responsibility will be decided upon by the Director according to budget provision.

Material required for various social forestry operations like raising of planting stock, establishment and maintenance of plantations and also for training and communication may be procured centrally and supplied to the NGOs. This material should be supplied well in advance of requirement. There should be no scope for any NGO to blame the failure of any operation on delayed supply of material. While deciding on the monetary support or incentive to be given to an NGO the material supplied for the operation should be kept in mind.

2. <u>Contracts between Project/VFC and NGOs</u>

2.1 When a particular work is entrusted to an NGO the Project or the VFC concerned and the NGO should enter into a contract describing the details of the work in question, the manner in which it is to be performed and the obligation and rights of both the parties to the contract, to ensure that the work is of the required standard. The matter of contracts will be handled by the M and E unit.

2.2 Form of contract

When an NGO takes up the job of raising planting stock in a decentralised nursery for the Project or a VFC the proformae provided for buy-back letter of intent as given in Annex 2.3 may be used. Forms in Annex 2.1 and 2.2 may also be used where applicable. For other operations the form given in Annex 7.1 is proposed to be used. This form is still a <u>draft</u> and will be finalised in consultation with appropriate legal authorities.

3. <u>Monitoring NGOs</u>

3.1 Monitoring is an essential function in any developmental activity. Monitoring the work of NGOs participating in the Project, is essential for the following reasons:

All NGOs are not experts in technical aspects of the Project. Quite a few will be new entrants in the field. It will, therefore, be necessary to maintain a close watch over the activities of these NGOs so that advice and assistance is extended where and when necessary for proper execution of all operations

To ensure that funds provided to the NGO are properly utilised and there is no misuse

To check that NGOs are conscious of their responsibilities in the above matters

To assess if the social goals aimed have been achieved and corrective measures, if necessary, are taken.

3.2 Proformae for monitoring the activities of NGOs in various fields will be based on various returns prescribed under different Chapters and contained in the Annexes. For example, where NGOs are maintaining a nursery, a nursery register as prescribed in Annex 2.4 may be used. Similarly, if a plantation activity is being carried out by an NGO, the plantation journals as prescribed in the Chapter on plantations will have to be maintained. A word of caution is, however, necessary. The NGOs may lack the detailed technical expertise to fill in the very comprehensive and detailed proformae prescribed for various activities. It would be the responsibility of the monitoring and evaluation unit to devise simplified forms for the use of NGOs. Ultimately the purpose of the forms is to assess what is happening and not to frighten NGOs from taking up social forestry activities.

3.3 Some sample proformae are contained in Annex 7.2 to 7.5 for monitoring activities of the NGOs. The monitoring and evaluation unit may further modify and adapt them for the use of NGOs.

These returns should enable the Project officials to judge if the conditions prescribed in the contract have been fulfilled and disbursement of the instalment concerned is warranted.

If the contract is for the entire social forestry programme in a particular area or establishment of a social forestry component, the reports and returns will be submitted to the Deputy Director concerned with a copy to the SFS having jurisdiction. In all other cases the reports and returns will be submitted to the VFW and the SFS concerned.

The monthly returns should be submitted in the first week of the month following the one to which it relates. The report should be submitted along with the last monthly returns of the application for disbursement of the last instalment of funds under the contract.

3.4 Inspection of Works by VFW/SFS/DD and Inspection Reports

Only returns and reports will not help in assessing whether a particular operation is being carried out in a technically sound manner. There should be periodical inspections of the operations by the Project staff having jurisdiction over the area of operation. The NGO should be represented at the inspections and advise on all matters whether technical or non-technical. The inspecting officers should draw up their inspection reports promptly and forward them to their superiors as well as to the inspecting officer nominated under the contract. They should also record their remarks in the journals concerned which should have appropriate space for such remarks. The inspecting officer nominated under the contract should consider these reports and remarks while drawing up his certificate or report as required under the contract.

3.5 Periodical Review Meetings

There will be periodical review meetings with the participating NGOs, besides the workshops and seminars, where problems, exemplary performance of NGOs, innovations, etc., can be discussed. The NGOs can exchange their ideas and discuss their experiences with respect to the Project and the job in hand. These review meetings will be arranged by the Deputy Director. The concerned SFS and VFWs also may be invited to these meetings. The problems, both technical and administrative, faced by NGOs and the progress of work of each NGO may be discussed in these meetings. Ordinarily such meetings should be organised once every quarter. Records of discussions of all such review meetings should be maintained.

CHAPTER 8

LEGAL PROVISIONS FOR SOCIAL FORESTRY

(L.K. Patnaik)

A. General

The forest activities in Orissa are governed, among others, by the Orissa Forest Act, 1972; the Forest Conservation Act, 1980; the Orissa Timber and Other Forest Produce Transit Rules, 1980 and the Orissa Forest (Grazing of Cattle) Rules, 1980. The said Acts and Rules are designed for preservation of forests and regulation of forest produce. However, many people feel that the promotional aspects under these Acts and Rules were completely neglected and the regulatory provisions were applied almost to the extreme. As a result, foresters and the society got estranged with each other. If a people's movement in forestry is to be ushered in, it is felt that democratisation of forest management is an essential step for involving new institutional structures in implementing forestry policy decisions.

The social forestry activities in Orissa are mainly centred on planting of trees leading to creation of common property resources in villages. The Orissa Village Forest Rules, 1985 as amended in 1989, provide the legal basis for management of such resources. There are also planting activities of a more individualised nature, e.g., the Forest Farming for Rural Poor and the Farm Forestry components. In the former case a "Tree Patta" scheme on government land is in action and in the latter case tree planting takes place on private land. It is not only a question of creating an asset for the community or the individual, but also a matter of managing this resource till it reaches the utilisation stage. In the case of a common property resource, the decisions on the final use of the product (usufruct) are to be taken by the villagers with the accent on weaker sections.

B. Orissa Village Forest Rules

1. Scope

Creation of assets through a cooperative effort between the villagers and Forest Department (Social Forestry Project) and management of the resource embodying the obligations and demands of both the parties are sought to be implemented and regulated under the Orissa Village Forest Rules framed by the State Government (vide Forest, Fisheries and Animal Husbandry Department Notification No. 16374 dated 28th September, 1985 and as amended vide Notification No. 27019 dated 17th November 1989). These rules have been framed in exercise of the powers conferred by Section 31 read with Section 32 and clause (d) of Section 82 of the Orissa Forest Act, 1972.

2. Village Forest

Sections 31 and 32 of the Orissa Forest Act (Annex 8.1) contemplate the constitution of a village forest and confer powers on the State government to make rules and to enquire into and settle the claims to any rights other than the rights of the village community or a group thereof for the benefit of which such village forest is constituted. Clause (xviii) of Rule 2 of Orissa Village Forest Rules defines "Village Forest" as one duly notified as such under Section 30 of the Orissa Forest Act.

3. Village, Grama, Grama Panchayat, Grama Sasan

Clause (xvii) of Rule 2 of the Orissa Village Forest Rules, 1985 (Annex 8.2), hereafter called the Orissa Village Forest Rules, states that "village" means a village as defined in the Orissa Survey and Settlement Act, 1958.

Clause (14) of Section 2 of the Orissa Survey and Settlement Act, 1958 lays down that "village" means any tract of land which has been recognised as a village in the revenue records or which the Board of Revenue may from time to time declare to be a village.

Clause (ix) of Rule 2 of the Orissa Village Forest Rules lays down that "Grama", "Grama Panchayat" and "Grama Sasan" shall have the same meaning as defined in the Orissa Grama Panchayat Act, 1964 (hereafter called OGP Act).

Under Section 3 of the OGP Act, the State Government may by declaration notify in the Gazette constituting any village or group of contiguous villages as a "Grama" and assign to such a "Grama" a name which shall be that of one of the villages comprised within the "Grama". No Grama shall, so far as may be reasonably practicable, be constituted with a population of less than 2,000 and more than 10,000 but in no event shall a village be divided and a part thereof included within a Grama.

Under Section 4 of the OGP Act for every Grama there shall be a "Grama Sasan" which shall be composed of all persons of the Grama registered as voters in the electoral roll being in force for any Assembly Constituency. The Grama Sasan shall be a body corporate by the name of the Grama to which it relates.

Section 7 of the OGP Act lays down that there shall be for every Grama Sasan, a "Grama Panchayat" as constituted under Section 10 of the said Act and the Grama Panchayat shall be the executing authority of the Grama Sasan.

4. Village Forest Committee

The Village Forest Committee as contemplated under Rule 3 of Orissa Village Forest Rules shall consist of the Sarpanch(es) of the concerned Grama Panchayat(s), the Ward Member(s) thereof belonging to the concerned village(s) communities, the concerned Foresters and Revenue Inspector(s) besides such other persons, not less than three and not more than five, of the said village. There shall be at least one woman member among the selected members and due regard shall be paid and landless labourers. The villagers themselves shall decide how many are to be selected and who are to be selected in a meeting of the villagers convened for the purpose by the Forester (Village Forest Worker). The sarpanch of the Grama Panchayat shall be the Chairman. Where more than one Grama is involved in village forest, the Sarpanch of the highest populated Grama shall be the Chairman of the Committee.

The term of office of the non-official members of the Committee shall be two years.

No procedure is prescribed for nomination of the members of the committee listed above. As such, these members will have to be chosen by general consensus.

5. Functions and Powers of Village Forest Committee

Considerable powers have been conferred and responsibilities reposed on the Village Forest Committee under the Orissa Village Forest Rules. The powers and responsibilities given to them are:

1. To demarcate the boundaries of the village forest with the help of concerned forester(s) and to maintain the demarcation in good condition (Rule 4).

2. To afford protection to the Village forest ensuring preservation of plantations therein (Rule 6) and pass resolutions accordingly.

3. To issue permits in the prescribed form by at least two members of the committee authorised for the purpose to remove wood or other forest produce from the village forest in accordance with decision taken by the committee duly counter signed by the Forester [Rule 8(1)], return the used permit books to the concerned Range Officers along with an abstract of forest produce sold on that account by the members authorised to issue permits [Rule 8(2)].

4. Distribute properly the forest produce among the beneficiaries on payment as prescribed under the Schedule of Rates for Forest Produce in Orissa Rules, 1977 as amended from time to time, for the respective forest divisions (Rule 13) and

maintain a record of distribution of the forest produce [Rule 9 (2)] and review all the distribution made in the committee meetings from time to time.

5. To deposit the sale proceeds of the forest produce realised by issue of permits from the village forest in the Grama Fund of the Grama Sasan concerned after deducting the expenses incurred by the committee or Government for protection, if any, [Rule 12(v)] and utilise the sum deposited under the said fund exclusively in the development and management of the village forest [Rule 12(2)] is decided by the committee.

6. To sell a part of the forest produce for generating funds for management and regeneration of the village forest.

7. To regulate grazing of cattle in the village forest in accordance with the provisions of the Orissa Forest (Grazing of Cattle) Rules, 1980 (Annex 8.3) by alternate closing and opening of areas for such period as it may consider necessary and by such methods as it may adopt [Rule 10(1)].

8. To impound cattle that enter the village forest if there is violation of any such regulation under [Rule 10(1)] [Rule 10(2)].

9. Undertake pasture development and fodder cultivation in "gochar" land within the limits of a village forest through schemes drawn up by the Sub-Collector or the D.F.O. or the Soil Conservation Officer in that regard and ensure that every household owning cattle has access to the benefit to the scheme [Rule 10(3)].

10. To implement the Management Plan prepared for the management of every village forest drawn up by the forester after approval by the committee and concurrence of the Range Officer with the funds alloted to the committee by the Grama Panchayat, Panchayat Samities and grants made by the Government exclusively for the purpose [Rule 11 (7)].

11. To maintain detailed accounts of receipts and expenditure relating to the village forest and submission of accounts for audit (Rule 12(4) and (5))

12. To lay detailed accounts relating to receipts and expenditure in its meeting for scrutiny and approval (Rule 12(4) and audit [Rule 12 (5)].

13. To meet as often required but at least once in every quarter. The V.F.W. will act as the convener of the meeting of the committee and will issue notices for meetings in the Notice Book maintained for the purpose. The V. F.W. will record the proceedings of every meeting in the Proceeding Book (to be signed by the Chairman of the Committee). The chairman shall forward copies of resolutions within 15 days to the concerned Range Officer and Tahsildar. Presence of three members including the Chairman shall form the quorum. One third of the members of the Committee may request the Chairman in writing to convene a meeting with at least seven days notice to all members [Rule 7(1) and (6)].

14. To reconsider within 30 days any resolution passed by the Committee which is considered to be against the principles of forest conservation and protection or illegal or against the interest of the beneficiaries by the local Range Officer or Tahsildar. If on reconsideration of the matter the Committee does not consider it necessary to alter the original resolution, the committee shall refer the matter within 45 days to the Divisional Forest Officer or the Sub-Divisional Officer who shall have powers for final decision. In other words, any such resolution should be confirmed by DFO and SDO [Rule 7(5)].

15. To follow the instructions of the Government from time to time while exercising and discharging the aforesaid powers and responsibilities [Rule 16(1)].

6. Rate of Payment

Rule 9(1) of Orissa Village Forest Rules lays down that the beneficiaries, on payment as prescribed under Rule 13, are entitled to forest produce from the village forest for their bonafide use or consumption. Rule 13(1) lays down that the rate of payment to be made by the beneficiaries for obtaining forest produce from village forest for their own use shall be the same as prescribed for the respective forest divisions under the Schedule of Rates for Forest Produce in Orissa Rules, 1977 (Schedule of Rates 1977) as amended from time to time. Rule 13(2) of Orissa Village Forest Rules lays down that the classification of trees as provided in the Schedule of Rates 1977 shall apply to the trees in a village forest. Thus the Committee, while assessing the rate of forest produce, shall be bound by the rates fixed by the government under the aforesaid Rules.

Rule 12(1) of the Orissa Village Forest Rules lays down that the sale proceeds of the forest produce realised by issue of permits from every village forest shall be deposited in the Grama Fund of the Grama Sasan concerned after deducting the expenses incurred, if any, by the committee or Government for protection of such forests where the committee failed to take up the protection responsibility of its own. Separate accounts for each village forest in respect of deposits made under sub-rule 12(1) shall be maintained by every Grama Panchayat concerned and half - yearly returns shall be furnished by the Grama Panchayat to the D.F.O. and the Panchayat Samiti in the prescribed form intiating therein the quantum of forest produce sold and revenue realised [Rule 12(3)]. The funds deposited by the committee in the committee in the Grama Fund shall be subject to audit as per provisions contained under Orissa Grama Panchayat Act, 1968 [Rule 12(5)].

Rule 12 (2) of the said rule provides that all sums deposited under Rule 12 (1) shall be strictly utilized in the development and management of the village forest concerned as decided by the committee and shall not be spent otherwise.

Detailed accounts relating to receipts and expenditure of the committee shall be laid before it in every meeting for scrutiny and approval [Rule 12(4)] and the accounts of the committee shall be subject to audit by the Internal Audit Organisation of the Forest Department [Rule 12(5)].

7. Transit of Forest Produce and Permit

Rule 14 of the Orissa Village Forest Rules lays down that the Orissa Timber and Other Forest Produce Transit Rules, 1980 (Annex 8.4) shall not apply in cases of transit of forest produce from a village forest and a permit issued under Rule 8 of the Orissa Village Forest Rules shall be deemed to be a transit permit for the purpose of these Rules. Rule 8 of the Orrisa Village Forest Rules provides that no wood or other forest produce shall be removed from the village forest except under and in accordance with the decision taken by the committee and a permit issued by two members of the committee authorised for the purpose by it and duly countersigned by the forester. The said permit shall be obtained before removal of wood or other forest produce from the village forest. The permit shall also be obtained by the beneficiaries under Rule 8 before felling, conversion, collection or removal of the forest produce in question in case they require to sell or barter the forest produce obtained by them for bonafide use or consumption. If a part of the produce is sold by the committee for generating funds for management and regeneration of the village forest, the buyer shall obtain necessary permit under Rule 8 for transportation of the village forest produce [Rule 9 (1)]. A copy of the form to be used for issuing permits under Rule 8 (1) is given in Annex 8.2. Abuse of powers of issuing permits under Rule 8 by the members of the committee, especially in areas where Government forests are located in the vicinity of village forests, must be guarded against. The used up permit books are to be returned to the concerned Range Officer along with an abstract of forest produce sold by the members authorised to issue permits.

8. Protection

Rule 6 of the Orissa Village Forest Rules lays down that it shall be the duty of all persons belonging to the community or communities for whose benefit the village forest is constituted to afford protection and ensure preservation of the plantation therein and in the event of any injury to such plantation from whatsoever cause, to report to the nearest local Forest Officer or Police Officer as soon as possible. The Village Forest Committee will also regulate grazing of the cattle in the village forest in accordance with the provisions of the Orissa Forest (Grazing of Cattle) Rules, 1980 by alternate closing and opening of areas for such periods as it may consider necessary and by such methods as it may adopt. Rule 11 (6) of the Orissa Village Forest Rules provide that the Committee shall protect the plantations in accordance with the approved Management Plan in all stages against grazing, fire and pilferage.

9. Offence and Penalty

Rule 5 of the Orissa Village Forest Rules lays down that , except as provided under the said Rules, no person shall cut, lop or in any way injure, appropriate or remove any tree or any lopping thereof, which is grown in any village forest or knowingly or willfully permit or abet the cutting, lopping, injuring, appropriating or removing of the same by any other person without having first obtained the permit in accordance with these Rules. Rule 15 of the Orissa Village Forest Rules contemplates that the provisions of Section 27 of the Orissa Forest Act, 1972 shall apply mutatis mutandis to all village forests. Thus, the village forest is treated on the same footing as a reserved or protected forest so far as prosecution and punishment for forest offences are concerned except under the Orissa Timber and Other Forest Produce Transit Rule,1980. Section 27 of the Orissa Forest Act, 1972 as amended by Act 9 of 1983 reads as follows:

(1) "27 Offence: (1) Any person who

(a) makes any fresh clearing or causes breaking up of land which is prohibited under Section 5;

(b) sets fire to a reserved forest or to a forest land in respect of which a notification under Section 4 has been issued or in contravention of any rule made by the State Government in this behalf, kindles any fire in such manner as to endanger such forest or forest land; or

(c) in a reserved forest kindles, keeps, or carries any fire except at such season as the Forest Officer may notify in this behalf shall be punishable with imprisonment for a term which may extend to six months and with a fine which may extend to five hundred rupees.

(2) Any person who in a reserved forest:

(a) trespasses or pastures cattle or permits cattle to trespass; or

(b) causes any damage by negligence in felling any tree or cutting or dragging any timber or removing any forest produce,

shall be punishable with fine which may extend to one thousand rupees in addition to such compensation for the damage done to the forests, which in no case shall be less than the value of the property damaged as the convicting court may direct to be paid.

(3) Any person who in a reserved forest:

(a) fells, girdles, lops, taps or burns any tree or plant or strips off the bark or leaves from or otherwise damages the same or causes damage to any forest produce;

(b) quarries stone, burns lime or charcoal or collects, subjects to manufacturing process or removes any forest produce;

(c) clears or breaks up any land for any other purpose, or cultivates or attempts to cultivate any land in any manner or puts up any sheds or other structure; or

(d) in contravention of any rule made in this behalf by the State Government hunts, shoots, fishes, poisons water or sets traps or snares,

shall be punishable with imprisonment for a term which may extend to two years and with fines which may extend to five thousand rupees.

(4) When a person is convicted for an offence under clause (a) of sub-section (1) or clause (c) of sub-section (3) the Court shall order eviction of the offender from the land in relation to which the offence has been committed and on such order being made all sheds or structures on such land shall be demolished and if the court so orders the crop, if any, standing on the land shall be seized and confiscated to the State Government.

(5) Order passed and actions to be taken under sub section 4 may be executed by a Police Officer not below the rank of a Sub-Inspector or a Forest Officer not below the rank of a Range Officer as the Court may direct.

(6) Nothing in this section shall be deemed to prohibit:

(a) any act done by permission in writing of the DFO or any officer authorised by him in that behalf or under any rule made by the State Government or

(b) the exercise of any right continued under clause (c) of sub-section 2 of Section 15 or created by grant or contract in writing made by or on behalf of the State Government as is referred to in Section 24."

10. Enquiry and Appeal

Sub-Rule (2) of Rule 16 of the Orissa Village Forest Rules provides that enquiry into claims relating to rights other than the rights of the beneficiaries shall be taken up individually by the Range Officer concerned within thirty days from the date of the receipt of the claims petition on the spot and the case records be submitted within fifteen days after conclusion of the enquiry to the Tahsildar whose order in the matter shall subject to the decision in appeal preferred under sub-rule (3) be final.

Sub-Rule (3) provides that any person aggrieved by an order under Sub-Rule (2) may prefer an appeal to the SDO whose decision shall be final.

Thus, sub-rules (2) and (3) of Rule 16 of the Orissa Village Forests Rules which have been framed in pursuance of Section 32 of the Orissa Forest Act, 1972 contemplate that the Range Officer, Tahsildar and SDO shall function as quasijudicial tribunals in determining the rights of the non-beneficiaries.

No procedure has been prescribed for deciding the case or hearing the appeal. Hence, principles of natural justice have to be followed. While deciding the dispute among the non-beneficiaries, the Range Officer shall take up the enquiry strictly within the stipulated period as otherwise the claim of the non-beneficiaries may be deemed to have been allowed in the event of non-compliance of sub-rule (2). He shall hear the aggrieved party or parties by giving prior notice and affording an opportunity to adduce evidence in support of their claim. No evidence should be recorded except in the presence of the claimant and without an opportunity to cross-examine the witnesses of the adversary. A reasoned order should be passed on the basis of the evidence on record without being influenced by extraneous considerations. The Range Officer should submit the same to the Tahsildar strictly within the stipulated period.

No provision has been made prescribing the period of limitation for filing an appeal by the aggrieved party before the Sub-Divisional Officer. In the absence of such a rule, the Sub-Divisional Officer shall have unrestricted discretion to entertain appeals at any time.

11. Sharing of Forest Produce

The most critical issue concerning participation will be the sharing of produce from the plantations. The Orissa Village Forest Rule provides that the beneficiaries shall, on payment, as prescribed under Rule 13, be entitled to the forest produce from village forest for their bonafide use or consumption. But no provision has been made under the Rules to decide the disputes between or among the beneficiaries relating to their rights in respect of enjoyment of the usufruct from the village forest. However, the total control and responsibility for management of the forests and sharing of the produce being vested with the VFC the committee will ensure equal distribution of all available forest produce and other benefits among the beneficiaries of the community for their bonafide use or consumption on the basis of one equal share for each kitchen as far as possible (Rule 9 (2)). The beneficiaries may sell or barter the forest produce obtained by them for bonafide use or consumption after obtaining necessary permit under Rule 8. The committee shall maintain a record of distribution of the forest produce and review all the distribution made before a particular meeting in the said meeting of the committee.

12. Constitution of Village Forest

All village woodlots and other community oriented components except the Institutional Plantations are to be notified as "Village Forests" under the Orissa Forest Act, 1972. Section 30 of the Orissa Forest Act lays down that the State Government may, by notification, constitute any land at their disposal to be a village forest specifying its limits for the benefit of any village community or group of village communities and may in like manner vary or cancel such notification. From the Project point of view the notification constituting a village forest will be issued within 18 months of commencement of plantation operations and in no case later than two years of such commencement.

Whenever it is proposed to constitute any land covered under community-oriented plantation/regeneration area as village forest for the benefit of any village community or group of village communities, the Deputy Director will submit a proposal to the Directorate through the Regional Joint Director specifying the situation and limits of such land and legal ownership/status of land, alongwith a map in the scale of 1:4000 (16 inch = 1 mile) duly signed and authenticated by the concerned Revenue Inspector. The explanation to Section 30 makes it clear that land recorded in the name of any private person or institution in the record -of-right in force maintained under the Orissa Survey and Settlement Act, 1958 shall be excluded. Only land at the disposal of Government including unoccupied land, temporarily occupied land or land occupied without permission (whether assessed or un-assessed) and all communal forest land will be considered for constitution as village forest by the State Government. Since a notification will have to be issued by the State Government to constitute a village forest under sub-section 2 of Section 30 of the Orissa Forest Act, 1972 by specifying the limit of the Village Forest, the Khata number, Plot number of the land in the Village, Mauza, Police Station, etc., have to be specified in the notification as in the case of lands acquired under the Land Acquisition Act. These particulars will be obtained by the VFW/SFS from the local Revenue Inspector after identification of the land for undertaking Project plantation activities.

In case of demarcated protected forests as in Khurda and Angul or in "B" Class reserved forests as in ex-State areas, where Project reforestation or rehabilitation components are contemplated to be undertaken, the rights of the tenants over trees are already regulated. By notifying them as village forests such rights will not be interfered with as the benefits/concessions under both the schemes are similar. But while drawing up management plans under Rule 11 of the Orissa Village Forest Rules, the rights enjoyed by the community as per existing rules will have to be kept in view and the specified

area of village forest will have to be assigned by the State Government to a community in a particular village or communities in a group of villages. Appointment of a Forest Settlement Officer to enquire into such claims as in case of reserved forests is not necessary. Claims, if any, can always be enquired into by the Range Officers under Rule 16(2) of the Orissa Village Forest Rules. The enquiry into such claims need not hold up implementation of Project plantation/regeneration activities as the rights are not inconsistent with the Project objectives as also envisaged in the Orissa Village Forest Rules.

Village woodlots which are raised on lands recorded as "gochar" (e.g., community grazing land) where the community has grazing rights are likely to pose some problems for notifying as village forests under the Orissa Forest Act, 1972. Even if a "gochar" is declared as a village forest, the management plan for the forest over gochar will specifically have to provide for grazing rights. Establishment, management and maintenance of common grazing grounds for common benefit of the people is one of the obligatory functions of the Grama Panchayat under Section 44(F) of the OGP Act, 1964. Again, under Section 5-A of the Orissa Government Land Settlement Act, 1962, the Government can also prepare a scheme for management and development of gochar lands. Once the woodlots raised over gochar are notified as village forests, the management plan under the Orissa Village Forest Rules will apply subject to grazing rights of the community. From the Project point of view, a staggered planting approach will be adopted ranging upto four years and in no year more than one-third of gochar land will be enclosed. The planted area will be developed in such a way that the pressure of grazing can be relieved by intercropping with grasses or other fodder crops.

13. <u>Vesting of Village Forest in Village Forest Committees</u>

Rule 3 (i) of the Village Forest Rules lays down that the management of every village forest shall vest in a Village Forest Committee.

As soon as the notifications are issued and replacement plantings in year two are completed, the management of all new plantation/ regeneration areas will be entrusted to the VFCs. The VFCs can then exercise their powers under the Orissa Village Forest Rules. The legal documents of a village forest must be displayed to the villagers at a prominent place in the village. After the transfer of management of the plantations to the VFC, the Project will only provide capital for certain activities like pruning, thinning, training and extension and technical guidance.

The village forests cannot, however, be legally transferred to the VFC as owners as they, unlike Grama Panchayat, are not a body corporate capable of holding and disposing of property, or suing or be sued in respect thereof, although they are statutory bodies under the Orissa Village Forest Rules. But they can be entrusted with management of village forest under terms and conditions prescribed in these Rules.

14. <u>Management of Village Forests</u>

The Appraised Project Document for Phase II stresses that the provisions contained in the Orissa Village Forest Rules shall ensure the participatory and democratic aspects of the Project. Further, that the legal constraints to felling, transporting and commercialising the community plantations are removed.

The Orissa Village Forest Rules in vogue have been framed to encompass not only community plantation/regeneration areas established by the Project with people's participation but also all such areas coming under the purview of the village forests as notified under the Orissa Forest Act, 1972 as well as such lands reserved under the land reservation principle in different Tahasils within village limits restricted to the prescribed percentage of the effective village area.

Rule 11 of the Orissa Village Forest Rules provides that a Management Plan shall be drawn up by the Forester concerned in triplicate for the management of every village forest incorporating the duration of the Plan; species planted; physical and legal description of the area; the rights of the beneficiaries; distribution of responsibility in

establishment, protection, management, financing and harvesting of the plantations; silvicultural methods; conditions of protection; and principles of distribution of benefits.

The Plan shall be placed before the Committee for approval and the committee shall forward three copies of such plan to the Range Officer who shall, after recording his views thereon, return two copies to the committee through the forester within 15 days. If the Range Officer endorses the plan approved by the committee, it shall be implemented straight away. If, however, the Range Officer is of the view that some changes are necessary in the Plan in order to secure the interests of the community, the committee may either accept the changes suggested by him or if it is of the view that the Plan originally approved by it is in the larger interest of the community, refer the matter to the Sub-Collector. If the discussions are reconciled through a discussion between the Range Officer and atleast three members of the committee, the Plan approved in the discussion shall be the approved Plan. In case differences could not be reconciled, the Plan as he deems proper after recording reasons therefor which shall be final and implemented by the committee.

The Management Plan shall be implemented by the committee with the funds allotted to it by the Grama Panchayat, Panchayat Samiti and directly by Government by way of grant placed at its disposal exclusively for the purpose.

C. Tree Patta

1. Scope

The Forest Farming for Rural Poor component of the Project enables landless families including tribals to practise density or agro-silvicultural models of intensive forest farming on marginal government surplus land in and around villages where plantations under village woodlots or reforestation component are established. Each beneficiary is allotted about 0.5 hectare land. This is an income generating programme for poor landless and tribals while increasing the productivity of presently unused land. The Project provides all the inputs and assists the beneficiaries in establishing the plantation. It is the responsibility of the beneficiary to properly tend, maintain and protect the trees on the plot allotted to him. From the Project point of view the beneficiaries will be given tree pattas in writing not later than two years after completion of planting in order to ensure flow of usufructs from the plantations including the agricultural produce to the beneficiaries. The tree patta is contemplated to confer legal rights on beneficiaries which are actionable at law.

The scheme for grant of tree patta is under serious consideration of the government. However, the following guidelines prescribing tenure and conditions may be mentioned.

2. Grant of Patta

The patta will be issued not later than two years after completion of planting depending the survival of plants after field verification. The patta should contain details of the earmarked land or plot, area, full description of the boundary, Mouza, Khata number, Thana, Plot number and the sketch map, the number of trees of each species with their normal rotation indicated therein. The normal period of the tree patta in respect of any tree or trees should be coterminous with the normal rotation contemplated for such tree or trees, unless the tree patta is lawfully revoked due to any reason. The tree patta issuing authority as well as the concerned Range Officer shall maintain a Register of Tree Pattas issued and note therein details of any change created on the trees by a tree patta holder through hypothecation to a financial institution for the grant of loans.

3. Rights and Obligations

The tree patta holder shall be entitled to the usufruct of the trees only. The usufructory rights under the tree patta shall include the rights to gather dead branches, take twigs and loppings of the branches, harvest produce such as fruit, flowers, seeds, leaves, carry on other tree based activities like bee keeping, lac production, etc., coppicing of trees, hypothecation of the trees only to financial institutions for loans by deposit of tree patta with the financial institution, and devolution of the tree patta on death of the patta holder.

The patta holder shall have no right to cut or damage either the whole or part of living trees or sub-let the trees except as provided in the tree patta. The patta holder will be permitted to cut and take the timber of the trees on their attaining rotation age. Separate tree patta shall be given for new trees planted in a similar manner. If trees die or fall down or are damaged due to reasons beyond the control of the beneficiary, he shall intimate the fact to the Range Officer/Tahsildar and then cut and take the timber/firewood after planting new trees in their place. No improvement of the land for which tree patta has been granted shall be done except what is incidental to growing of trees and their tending.

The patta holder shall have no ownership or any other right whatsoever on the earmarked land on which trees are planted. The ownership of the land shall continue to vest in the government. He shall not transfer, sub-let or create any interest, title or easement in the land or in trees except to the extent permitted in the patta. The tree patta may be transferred to a person of eligible category with the prior permission of competent authority and in cases where a loan has been taken by hypothecation of tree/ trees and deposit of patta, with the prior consent of the concerned financial institution. In case of transfer of tree patta without permission of competent authority, no rights shall accrue to the transferree, who shall be liable to be summarily ejected and such transfer shall be null and void and not enforceable against the transfer.

4. Dispute and Appeal

Disputes relating to any of the matters connected with the tree patta shall be decided by the tahsildar or any other designated authority. Only one appeal shall lie to District Collector whose decision shall be final.

5. Procedure

As soon as the replacement plantings in year two are completed, the VFW will verify the number of plants surviving in the plot species-wise and submit a proposal to the SFS indicating the details of earmarked plot, area, description of the boundary, plot number, Mouza, Khata number, Thana, Status of Land, etc., alongwith a sketch map of the plot. After scrutiny/field verification, the SFS will determine the normal rotation of the concerned species and send the proposal to the Deputy Director who will move the tahsildar/other competent authority to issue the patta indicating the period of validity of the patta and specific rights of the beneficiaries.

D. Orissa Timber and Other Forest Produce Transit Rules, 1980

There are no rules regulating fellings of trees in private land or forests. Timber and other forest produce in transit are governed by the Orissa Timber and Other Forest Produce Transit Rules, 1980 (Annex 8.4). Transit permits are required for transport of privately owned timber, bamboos and firewood (exceeding one headload) on land or water whether obtained from own land, or purchased or obtained from any other source including community forests and stored in a depot.

As regards farm forestry where trees are grown on individual holdings or institutional lands, permission of the Divisional Forest Officer will have to be obtained to remove a felled tree because of the restriction imposed on removal of trees from one's holdings to outside for sale or for conversion in the sawmill's under the Orissa Timber and Other Forest Produce Transit Rules, 1980. Such permission will be granted after proper

verification on the basis of application submitted to the Divisional Forest Officer in Form No. III prescribed under the said Rules. This procedure will also apply for cutting trees grown under FFRP where the beneficiaries have right over usufructs/timber of the trees subject to such restrictions and conditions as described in the tree pattas and selling them. No such permission is required for one's bonafide use in the same location where the beneficiary's holding is situated. However, under Section 42 of the Orissa Forest Act, 1972, the State Government may, by notificaton, from time to time, prohibit the cutting of fruit-bearing trees specified in the notification which are standing on any land (other land which is the property of Government or over which the Government have proprietary rights) and the cutting of which is likely to lead to a fall in agricultural or industrial production.

The provisions of the Orissa Timber and Other Forest Produce Transit Rules, 1980 shall however, not apply in cases of transit of forest produce from village forest to places in view of provisions contained in Rule 9(1) of the Orissa Village Forest Rules. A permit issued under Rule 8 of the said Rules to the entitled beneficiaries in case they require to sell or barter the forest produce obtained by them for bonafide use or consumption shall be deemed to be a transit permit (Rule 14). However, the beneficiaries shall obtain permit before felling, conversion, collection or removal of the forest produce in question. Similarly, the buyer in respect of forest produce sold by the committee for generation of the village forest shall obtain necessary permits under Rule 8 for transportation of the village forest produce.

E. **Support to Participating Villages**

Training of VFC members to follow the provisions of the Orissa Village Forest Rules will have to be organised by the VFW/SFS who in turn will explain these provisions to the villagers. Besides, they will require constant visits of Project staff for advice and guidance in exercising their powers and discharging their responsibilities as laid down in the Orissa Village Forest Rules. There should be no scope for the Committee to blame the staff for ignorance or failure to comply with the legal provisions laid down in the Rules/Acts.

Similarly, the marketing sub-committee which may be set up by the VFC should be given special training in legal issues.

The existing Orissa Village Forest Rules should be translated in simple Oriya language which would be intelligible to the villagers and circulated among the VFCs and villagers concerned.

CHAPTER 9

JOB DESCRIPTIONS AND WORK-PLANS

(*L.K. Patnaik*)

A. Job Descriptions

1. Director, Social Forestry (Rank CCF)

1.1 The Director is in overall charge of the Social Forestry Project in the State and will advise the State Government, Chairman, Orissa Plantation Development Corporation and Principal Chief Conservator of Forests on matters connected with the Project. The Director shall refer all matters which require clearance from the Government to the Secretary to Goverment dealing with the subject. The Director shall address the government officially, on own initiative, on questions of policy, development concerning social forestry matters and personnel management requiring the approval of the government and on such technical matters as the Director may wish to bring to the notice of the State Government.

1.2 Further, the Director shall:

i) Supervise the work of all regions/social forestry divisions and review the progress of implementation of the Project activities regularly and ensure that the work-plan of operations is satisfactorily adhered to

ii) Deal with technical questions and issue suitable instructions to Regional Joint Directors and Deputy Directors as and when necessary to remove bottlenecks and ensure smooth implementation of the Project

iii) Issue suitable instructions/advice to the territorial Conservator of Forests and Divisional Forest Officers in matters connected with the Project for its smooth implementation

iv) Act with such other matters within the powers delegated to the Director him under the special orders of the Government or Chairman, Orissa Plantation Development Corporation

v) Ensure proper allotment of work targets and funds to the social forestry regions and divisions

vi) Ensure timely submissions of all reports and returns as prescribed by State Government/Government of India/National Wastelands Development Board

vii) Ensure timely transmission of annual plans, consolidated budget, appropriation proposals and exercise control on expenditure

viii) Correspond with the Inspector General of Forests, National Wastelands Development Board, offices of the cooperating agency at the State level, in all matters of professional/Project interest while keeping the State Government informed

ix) Make tours of inspection and supervise as many of the Project activities in each district as possible

x) Ensure proper functioning of Training, Monitoring, Research and Publicity Boards created under the Project

xi) Supervise and attend some training camps organised for VFCs, villagers and NGOs and also attend some VFC meetings/annual meetings organised for the village community as a whole in each district.

2. Joint Director, Headquarters (Rank CF)

2.1 The Joint Director (JD) shall supervise the work of Project support divisions at headquarters such as Monitoring and Evaluation, Planning and Research, Publicity and Information, Training and Extension. JD shall ensure proper coordination between the supporting Project personnel and field staff and assist the Director in all matters, specially subject matters as may be assigned to JD.

2.2 Further, JD shall:

i) Be the convener and secretary of the Training, Monitoring, Research and Publicity Boards

ii) Guide the Deputy Director, Planning and Research in preparation of annual programmes for research and experiments

iii) Guide the Deputy Director, Monitoring and Evaluation in identifying the studies to be undertaken by outside agencies and also in organising internal monitoring and evaluation surveys

iv) Guide the Deputy Director, Information and Publicity in preparing the annual programme for information and publicity and production of publicity materials/audio-visuals

v) Guide the Deputy Director, Training and Extension to assess the training needs and prepare an annual programme for training. JD shall supervise the training programmes from time to time and develop/design/update the training modules

vi) Evaluate the publicity and training programmes from time to time for their possible replication/upgradation

vii) Check 1% of samples selected for an evaluation and survey

viii) Attend the training camps and publicity campaigns organised in the field as frequently as possible

ix) Assess the supporting activities undertaken at the district and village level, in the fields of publicity, training and extension and report to the Director from time to time

x) Assist the Director in all legal matters pertaining to the Project.

3. Regional Joint Directors (Rank CF)

3.1 The Regional Joint Directors shall administer and supervise the work of the social forestry divisions under their control. It shall be their endeavour to run the Project in their regions in accordance with the approved Project. The Regional Joint Directors shall address the Director on questions of personnel management and such technical matters requiring approval of the Director or which they may consider necessary to bring to the notice of the Director.

3.2 Further, the Regional Joint Director shall:

i) Ensure timely fixation of work targets and finalization of field programmes for each division

ii) Ensure proper coordination between the Project personnel and the staff of territorial wing of Forest Department, Revenue Department/Orissa Plantation Development Corporation and report the difficulties, if any, to the Director

iii) Ensure timely implementation of various Project activities and see that the progress of work is made according to the work schedule and within the approved norm

iv) Make frequent tours of inspection and visit as many of the Project villages in each division under their control as possible

v) Issue, whenever necessary, suitable instructions to the Deputy Directors to remove bottlenecks and ensure smooth implementation of the work

vi) Deal with all technical questions relating to Project activities within their region

vii) Inspect at least 25% of the total number of nurseries, 20% of the plantation components at the time of pre-planting, planting and post-planting operations, 10% of the seedlings planted under Farm Forestry and 30% of the FFRP components during the course of their tours, verify their extent, condition, cost of operations, percentage of success, general condition of growth and protection mechanism

viii) Ensure timely declaration of plantation/rehabilitated areas as village forests and their transfer to the VFCs

ix) Supervise and control the Project supporting activities and assess the level of people's participation as well as social awareness

x) Attend 5% of the VFC meetings, 5% of training camps for VFCs/NGOs, etc.

xi) Inspect the office of each division in their region once a year and send the inspection note for the information of the Director and Government

xii) Act on such other matters within the powers delegated to them under the special orders of the Government/Chairman, Orissa Plantation Development Corporation/Director.

4. <u>Deputy Director, Administration (Rank DFO)</u>

4.1 The Deputy Director (DD) shall supervise the work of office staff and look into the office administration in the directorate under the direct control of the Director.

4.2 DD will exercise control over office cash and contigent expenditure in the directorate and render necessary accounts to the Accountant General, Orissa.

5. <u>Deputy Directors, Field (Rank DFO)</u>

5.1 The responsibility for proper management of Project activities and the control of finance of the divisions rests on the Deputy Directors. They are responsible for correctness of all technical and social operations carried out in their division subject to the provisions contained in the approved Project and any instructions that they may receive on the matter from their superior officers. They should have intimate knowledge of the target villages and of the people with whom they have to deal.

5.2 Among other duties and responsibilities they shall:

i) Undertake all works pertaining to Project components that may be entrusted to them, as also such other duties as may be entrusted to them

ii) See that Project funds are spent usefully, economically and in accordance with the approved norms and render accounts to the Accountant General, Orissa and Government of Orissa as well as abstract of the cash account to the Director/ Regional Joint Director

iii) Work in close collaboration with the concerned territorial divisional forest officers and revenue officers, and ensure proper coordination between the Project staff and the staff of the Revenue/Forest Department/Block/Orissa Plantation Development Corporation

iv) Ensure proper maintenance of all relevant records at different levels as may be prescribed and called for from time to time and submit all other returns

v) Prepare a work schedule for the division and look into the implementation and coordination of various Project operations and supporting activities

vi) Have control and supervision over expenditure in each social forestry range

vii) Be responsible for production of seedlings of good quality for planting and distribution

viii) Ensure selection of villages by 31st December every year, prepare a resource inventory in villages, supervise micro-level planning by SFS/VFWs, constitute VFCs, select FFRP beneficiaries, select plantation sites, complete pre-planting/planting/post-planting operations, prepare JMP by 31st May every year and see that progress of work is made according to the work plan and within the approved norm

ix) Tour extensively to supervise the work and inspect every month at least 50% of the nurseries raised during the pre-planting period, 25% of the plantations including FFRP every month at the time of pre-planting/planting/post-planting operations in his division. They shall also inspect 10% of the plantings done under farm forestry

x) Ensure timely transfer of all community plantations /rehabilitation areas to the concerned VFCs after their declaration as village forests;

xi) Attend 25% of the training camps organised for VFCs/villagers/NGOs etc. and 20% of the VFC meetings. The Deputy Directors shall also attend 50% of meetings organised for the village community as a whole each year

xii) Inspect all social forestry range offices at least once a year

xiii) Lay out local observation/research plots if considered necessary on matters which have not been included in the approved programme of research with the approval of Regional Joint Director. When such a plot is laid, the Deputy Directors should consult the Deputy Director (Research) in order to properly design the observation plot and send them annual observation report to the latter under intimation to the Regional Joint Director

xiv) Be responsible for such other duties as may be entrusted to them.

Deputy Director, Planning and Research (Rank DFO)

The Deputy Director shall:

i) Prepare an annual programme of research and experiments in consultation with the Joint Director, HQs and Director and submit it for approval to the Research Board by February each year for the ensuing year

ii) Compile brochures on interim or final findings whenever experiments are undertaken to study the plantation technique, manurial frequency or dose or suitability of any species, etc.

iii) Supply all information about particular species and other technical matters to the Deputy Directors of social forestry divisions

iv) Develop and revise guidelines for management suitable for different silvicultural and socio-economic conditions for Project plantations and farm forestry components

v) Develop optional silvicultural and distributional alternatives for each plantation model to allow farmers and communities to choose and adopt plans in collaboration with Project implementing staff

vi) Monitor actual field experience with various silvicultural and socio-economic models in order to identify the most successful management methods, in collaboration with on-going project monitoring and evaluation

vii) Collect results from on-going research and agroforestry trials and disseminate these to field staff and extension personnel in the form of regular technical circulars

viii) Be in charge of arranging seminar activities in the Project and see that material for these seminars are delivered to the participants

ix) Be responsible for such other duties as may be entrusted to the Deputy Director.

7. Deputy Director, Monitoring and Evaluation (Rank DFO)

7.1 The Deputy Director (DD) has the over-all responsibility to supervise, coordinate, manage and administer the work in the monitoring and evaluation unit.

7.2 Further, DD shall:

i) Prepare annual and long-term physical and financial work-plans

ii) Prepare information brochures/reports for the directorate, Government of Orissa and Government of India

iii) Determine what studies should be carried out by outside agencies and supervise these studies under the guidance of Social Forestry Monitoring Board

iv) Be in charge of internal evaluations and evaluate Project achievements under physical, financial and technical heads

v) Train the field staff and field surveyors on monitoring

vi) Supervise the computer system

vii) Be responsible for such other duties as may be entrusted to the DD.

8. Deputy Director, Information and Publicity (Rank DFO)

The Deputy Director shall:

i) Prepare an annual programme for information and publicity in consultation with the Joint Director, Headquaters and Director and obtain approval of the Publicity Board by January each year for the ensuing year

ii) Oversee the production of publicity materials and audio-visuals to reach different target groups of people

iii) Collaborate with the media to foster support from various sectors of the society

iv) Produce and distribute publicity brochures, posters and give away utility articles carrying Project logotypes and messages

v) Organise dance/drama/puppet/film shows at village level

vi) Coordinate the regional and district publicity campaigns

vii) Equip the mobile publicity vans with the appropriate exhibition materials and coordinate for its duplication at the district level

viii) Evaluate the publicity initiatives for their possible replication or upgradation

ix) Participate in important exhibitions at the State/Regional level

x) Be responsible for such other duties as may be entrusted to the Deputy Director .

9. Deputy Director, Training and Extension (Rank DFO)

The Deputy Director shall:

i) Assess the training needs of all executive and field staff under different categories each year in different fields relevant to implementation and management of the Project

ii) Prepare an annual programme for training for the Project implementing staff,VFC members, NGOs, etc., in consultation with the Joint Director, HQ and Director and obtain approval by the Training Board by January each year for the ensuing year

iii) Organise training in extension methods, social aspects of forestry, communication, fodder and pasture development, agro-silviculture, horticulture, social sciences, tribal development, project management, monitoring and evaluation, computer use, etc., relevant to social forestry both for field and executive staff involved in the Project

iv) Collaborate with the social forestry training institute; Orissa University of Agriculture and Technology (Extension Department), C.D. Training Institute; Village Agricultural Training Institutes; Tribal and Harijan Training Institutes, all located at Bhubaneshwar for arranging training and trainers

v) Develop and design training modules for different categories of Project staff and other important target groups

vi) Coordinate activities of training and extension at the district level

vii) Identify suitable outside institutions for specialised training of Project staff and to train the resource persons as trainers

viii) Be responsible for such other duties as may be entrusted to the Deputy Director .

10. Specialists (Rank ACF)

10.1 The following duties, among others, shall be discharged by the Specialists in the divisions. All duties which are discharged by the Deputy Director in the division shall also be discharged by them with the approval of the Deputy Director.

They shall:

i) Assist the Deputy Director (DD) in all matters, specially the subject matters assigned to DD

ii) Inspect every month 50% of the total number of nurseries during the pre-planting period, 25% of the Project plantations including FFRP at the time of pre-planting/planting/ post-planting operations and 20% of the plantings done under farm forestry

iii) Attend at least 25% of the VFC meetings, and 50% of the village meetings organised for the village community as a whole

iv) Organise training camps for VFCs, Villagers and NGOs and attend at least 30% of such camps.

11. Social Forestry Supervisors, SFS (Rank Forest Ranger)

11.1 The Social Forestry Supervisors would work at Block level with the activities limited ordinarily to two Community Development Blocks. The SFSs shall be responsible for overall management of their ranges and various Project activities undertaken therein as per the range work-plan.

11.2 The SFSs shall:

i) Remain responsible for timely execution of all works in their ranges according to work-plan

ii) Ensure proper maintenance of all relevant records as may be prescribed and submit all returns prescribed and called for from time to time.They shall be responsible for maintenance of all plantation and nursery journals by VFWs and see that these are handled correctly and properly

iii) Check and control all work within their ranges and ensure that Project funds are used in the most economic and efficient manner

iv) Remain responsible for all cash disbursements and expenditure within the range. All payments for pay and labour must, as far as possible, be done personally by them. They shall render accounts to the Deputy Director for the sum advanced to them

v) Endeavour to have intimate knowledge of the Project villages and of the people with whom they have to deal

vi) Supervise thoroughly the work of all VFWs and be responsible for the discipline, conduct and work of all VFWs

vii) Communicate all official orders and instructions to the VFWs and see that they understand them fully and execute them correctly

viii) Ensure selection of villages, preparation of village resource inventory, drawing up of micro-level plans, selection of FFRP beneficiaries and constitution of VFCs by the 15th December each year

ix) Ensure selection of plantation/rehabilitation sites by 15th January each year

x) Ensure selection of sites for temporary Project nurseries by 31st January each year

xi) Identify the nursery persons for decentralised nurseries by 31st January each year, organise their training, supply necessary inputs to them by 10th February each year. Disburse the balance amount at prescribed rates

xii) Inspect every month all the nurseries in their ranges during the pre-planting period and ensure production of good quality seedlings

xiii) Inspect all plantations including FFRP during pre-planting, planting and post-planting operations. They shall also inspect 50% of the plantings done under farm forestry

xiv) Attend 50% of the VFC meetings, and village meetings organised for the village community as a whole

xv) Organise training camps for VFCs, villagers and NGOs and attend all such camps

xvi) Ensure preparation and signing of JMPs by 31st May each year

xvii) Ensure timely submission of proposals for declaration of community oriented components as village forests and their timely transfer to the village.

12. <u>Village Forest Workers, VFW (Rank Forester)</u>

12.1 The VFWs constitute the base of the Project and they would work at Panchayat level with the activities limited ordinarily to two Gram Panchayat. They will be the Project's direct contact, service and support person in the villages, and will assist the villagers in organising themselves to carry out the project activities. They will tackle two new villages per year excluding the farm forestry component which may cover a number of villages within their jurisdiction depending on the quantum of seedling distribution. Thus each VFW will tackle community plantations in 6 villages during a 3 year period. In tribal-intensive areas, the VFWs shall be responsible for only one new village per year. They shall be responsible for selection of villages; constitution of VFC, preparation of village resource inventories; micro-level planning; identifying NGOs for participating in the Project activities or undertake specific tasks and collaborate with them; motivation of people; selection of land; organisation of Project implementation activities including setting up of nurseries; planting; various cultural operations and protection of plants; preparation of JMPs; organising regular meetings of the VFC and attending the same. They will ensure that employment in the Project activities is given to landless, poor and women and the requisite amenities are available to the workers. They will demonstrate the risk and dangers associated with the pesticides used and ensure safe handling of these chemicals. They shall be viewed as a resource person, supporting the village and villagers. They must plan their work and visiting schedule in order to spend most of their time in training and motivatory work in the target villages without neglecting the silvicultural aspects of the Project. They shall assist the SFS in carrying out the work of the Project sincerely and efficiently.

12.2 <u>Inter-alia</u> and subject to above considerations, the VFWs shall:

i) Carry out the orders of their superiors

ii) Ensure that all works entrusted to them are carried out as per work programme

iii) Be responsible to report to the SFSs on all important happenings in their sections

iv) Inspect every month all the nurseries, all the plantations including FFRP during preplanting, planting and post-planting period and 75% of the seedlings planted under farm forestry

v) Attend all VFC meetings, and annual meetings organised for the village community as a whole organise and attend training camps for VFCs, NGOs, FFRP beneficiaries

vi) Maintain register for expenditure, employment, quantum of work, production and sharing, protection activities, training activities, etc. They shall also maintain nursery journals, plantation journals and initiate annual nursery and plantation returns

vii) Attend to such other duties as may be entrusted to them from time to time.

13. <u>Statistician</u>

The Statistician shall:

i) Prepare the statistical designs for sample surveying and sample selection

ii) Prepare rules for laying of sub-plots

iii) Be responsible for the computer data-base system

iv) Supervise sample field surveys

v) Supervise all tabulation works

vi) Assist in report writing and analysis of data related to programme monitoring.

14. Economist

The Economist shall:

i) Design and supervise socio-economic surveys

ii) Assist in physical and financial planning of the Project

iii) Assist in designing studies to be undertaken by outside agencies and liaison with them.

15. Sociologist

The Sociologist shall:

i) Frame different sample designs and prepare questionnaires pertaining to relevant social aspects of the Project

ii) Shall analyse and interpret the information thus gathered in social context

iii) Train the investigators in social sciences

iv) Assist Deputy Director training in designing training models in sociology for Project personnel and preparing training material

16. Statistical Officer/Assistant

The Statistical Officer shall:

i) Perform the operations of the computer system (data entry/ retrieval/storage/calculation)

ii) Guide the field staff in all aspects of survey under the supervision of statistician

iii) Collect and compile data and information received from all circles.

17. Junior Statistical Assistant

The Junior Statistical Assistant shall:

i) Assist the statistical assistant in data collection and compilation

ii) Collect and compile the information from the field

iii) Check the accuracy of the data so collected.

B. Yearly Work Plan at Village Level

Two work-plans, one for community oriented plantation activities and the other for farm forestry, are presented in Annexes 9.1 and 9.2. They deal with the work which should be undertaken in a community oriented plantation activity and in farm forestry. They indicate the activities to be initiated at various times of the year and the persons responsible for those activities.

CHAPTER 10

MAINTENANCE OF NURSERY AND PLANTATION JOURNALS

(*B.K. Patnaik, H. Egneus*)

A. Introduction

In this Chapter two important facets of the work of the VFW and the SFS at the district level is considered. In order to plan for and follow the yearly activities, it is important that records are kept both for the number of plants produced and how they have been used. Yearly targets are set both for nursery and plantation activities at the directorate level. These target figures are then communicated to the district level where they are converted to the actual nursery and plantation targets for the SFSs and VFWs. In order to monitor the performance, information about the achievement is fed back to the target giving authorities.

The Project has, for this purpose, designed the following four proformae:

a. Nursery Journal (Annex 10.1)

b. Nursery Report (Annex 10.2)

c. Plantation Journal (Annex 10.3, 10.4, 10.5)

d. Plantation Report (Annex 10.6)

e. Plantation Expenditure Ledger (Annex 10.7).

The journals are maintained by the VFW or SFS, and are an important part of the reporting and monitoring system built in the Project. They are continually checked by the Monitoring and Evaluation Unit of the Project. These journals are fairly detailed and are maintained by the trained Project personnel. It is possible that once the social forestry activities are taken over completely by the concerned villages or NGOs these detailed and complicated proformae may not be necessary and some simpler way of evaluating and monitoring the activities may have to be devised.

B. Nursery Journal and Nursery Report

1. Nursery Journal

A complete copy of the nursery journal is contained in Annex 10.1.

1.1 Raising of plants in different types of nurseries is one of the key activities for successful social forestry plantations. It is, therefore, necessary to maintain a nursery journal for each new nursery which is established (temporary and permanent) as a part of Project activities. All Project managed nurseries must use the nursery journal as prescribed in Annex 10.1. For plants raised in Project supported but not Project managed nurseries a simpler journal may be used.

Private individuals involved in nursery activity may similarly be motivated/ persuaded by the VFW to maintain a nursery journal or register as it would help them in streamlining and economising their nursery management.

1.2 The nursery journal is maintained by the village forest worker under the direct guidance and supervision of the SFS.

1.3 The purpose of maintaining the nursery journal is to keep, develop and deliver information that helps in effective planning for raising seedlings and distributing them under different components of the Project and to keep track of materials used and costs incurred.

1.4 Some of the items contained in the nursery journal may require some comments and explanations/instructions for compilation. They are:

(i) Inspection Notes (Item 13)

Comments and observations made by the supervisory officers are recorded here. They are meant to improve the functioning of the nursery and as such any deficiencies or short-comings that come to the notice of the inspecting officers are explained to the nursery staff and recorded here, along with suggestions to remedy the shortcomings. Inspecting officers should always make it a point to study the previous entries and ensure that follow-up action is initiated.

(ii) Seed Supply, etc. (Item 14)

This item contains a list of about 30 species which are most commonly used in social forestry components. The information to be recorded against each species pertains to the seed provenance (place from where a particular seed was collected), pre-treatment of seeds before sowing, application of any hormones, insecticides, manure, etc., to the seedlings and also information about weeding and pruning.

For each tree species the VFW must record from where the seeds used in the nursery were procured. The supply of quality seeds and the knowledge about their genetic characteristics is essential for a proper assessment of the plantation results. The code referred to at the bottom of the page (1) could be used. Quantity of seeds received from different sources should also be noted. In case cuttings are used as planting material, this should be specified under "seed supply".

Some of the seeds require pre-treatment such as treatment in boiling water or acid before planting and the plants/ seedlings in nursery beds may also require treatment by hormones, addition of fertilisers, insecticides and pesticides, etc.; any such treatment of the seeds or the plants are noted down here.

The VFW in charge of the nursery should maintain a separate note book as a subsidiary record, wherein information about each bed may be kept. The consolidated report may be entered in the nursery journal.

(iii) Nursery Specifics (Item 15)

A number of tasks typical for the nursery are treated under this topic. What is important to bear in mind is that in some cases, seeds sown may not germinate or seedlings may die during development. In such cases it might be necessary to re-sow the seed beds and thus a particular species may have more than one date of sowing. The VFW must see that all separate dates of sowing are filled in. An example of how this is to be done is shown below:

Species	Dates Sown	Germination Period	Date and Height (cm)	%Survival
Acacia.a	12.3	18 - 23	15.6 (55 cm)	76%
	1.4	4 - 8	26.6 (44cm)	85%

In the column denoting "date and height", the date and height of plants on the date of delivery to the plantation are recorded.

In the last column, "percentage survival" of plants the number of plants surviving in each polypot bed are to be recorded. Each polypot bed should contain 1000 polypots. By finding out the number of empty, damaged or badly developed plants, the "survival %" is easily calculated. This information is essential for arriving at the final production figure and it would also throw light on the species which are susceptible to casualty during the nursery stage. In case of species where seeds are sown in beds for obtaining seedlings suitable for preparing stumps, this

percentage will be that of stumps produced against seeds sown. Cuttings or stumps planted should be put in the column "dates sown", but it must be marked down in the specific case that it was not a seed but a cutting/stump which was used as plant material.

(iv) Ledger on Seedlings, etc. (Item 16)

Under this item, a ledger on production and distribution of seedlings is maintained. Seedling production means the number of seedlings raised to a specified size or suitable for transplanting in the field. Against the names of different species, the columns would indicate the number of seedlings utilised for planting under the Project components, Village Woodlot (VWL), Reforestation of Depleted Forests (REFO), Rehabilitation of Degraded Forests (RDF), Forest Farming for Rural Poor (FFRP) and Farm Forestry (FF).

The last column but one (REPLAC) indicates the number of seedlings of each species used for casualty replacement in both first and second years of plantation. The last column gives the total production figure of each species. At the bottom of the page the total number of plants distributed to each specific component is calculated.

(v) Expenditure and Mandays, etc. (Item 17)

The VFW must maintain a small note book where all expenditure concerning the nursery operation is recorded along with voucher numbers. From the data in this note book, the ledger for expenditure and man-days generated in the nursery operation are maintained. Cost of materials includes the cost of polythene bags, farm yard manure, cost of soil and sand, insecticides and fertiliser etc. Cost of employment includes the cost incurred towards labour employed for various items of work i.e. polypot filling, watering, seed treatment, sowing, weeding, transplanting, etc. The VFW should also keep a record of all man days of work concerning the nursery operations corresponding to the item of expenditure. The number of man days of each category of labour broken down by male/female and SC/ST and others must be specified. The production cost per plant is obtained by dividing total expenditure by the total number of seedlings produced.

(vi) Farm Forestry Ledger (Item B)

A special ledger is used for distribution of plants to the private farmers and other beneficiaries under farm forestry component. In this ledger it is important that the beneficiary signs for the number of plants received. A requisition form is to be collected from each beneficiary willing to take 100 or more seedlings.

2. Annual Nursery Report

The form is contained in Annex 10.2. The nursery activities are followed up through a two page annual nursery report. The VFW compiles the annual return under the direct guidance and supervision of the SFS in September/October, once the nursery operations are over. The VFW completes the report and submits it to the SFS in triplicate. The SFS retains one copy in his office and forwards the remaining two copies to the Deputy Director. The Deputy Director in turn collects the reports from the ranges and submits one copy of each nursery report to the Monitoring and Evaluation Unit of the social forestry directorate latest by the 15th of November each year.

The information needed for the compilation of the report is obtained from the nursery journal. Item 13 dealing with the distribution of seedling for farm forestry is compiled from the farm forestry ledger (item B of nursery journal).

C. Plantation Journal and Plantation Report

1. Plantation Journal

1.1 A copy of the plantation journal is contained in Annexure 10.3. It is maintained and kept by the VFW under the direct guidance and supervision of the SFS. A separate journal is maintained for each component of the Project for each new plantation unit.

1.2 The following are provided for correctly filling in information on some of the items in the journal:

(i) Component Plot Number (Item 2)

Component plot number is used in case of phasing of component. If a plantation activity is undertaken in the same village in more than one year, each component raised in a particular area in that village must be assigned a plot number. For example, 3 ha. VWL of 1985, 4 ha. VWL of 1986 and 6 ha. VWL of 1987 in the same village are assigned VWL plot numbers one, two and three respectively. One plantation journal must be kept separately for each of those plantations in order to enable a proper follow up.

(ii) Planting Model (Item 5)

The VFW in cooperation with the villagers and the VFC decides upon a planting model. A number of different species mixture are specified so as to achieve proper composition i.e. fuelwood 40%, small timber 40%, fodder 5%, MFP 5%, fruit 10%.

(iii) Physical Features (Item 7)

The physical features, e.g., configuration, aspect, existing vegetal cover, if any, should only be described broadly, but the VFW should try to estimate the slope. This would also give an idea about the vulnerability of land to erosion.

(iv) Site Clearance (Item 9)

The clearance of the area selected for a plantation might give some benefits for the villagers. This information should be collected as it would be important in the assessment of the total benefits coming out of the activity.

(v) Planting Activities (Item 11)

While recording the dates of fertiliser application, not only the quantity but also the composition of the fertiliser should be mentioned. Addition of manure or compost is also noted down.

(vi) Protection (Item 12)

The type of protection decided upon by the VFC, the VFW and the villagers must be noted down carefully. If several methods are to be used, all must be recorded along with the period during which protection is to be provided. If any fire protection measures are adopted, they should find a mention.

(vii) Village Forest Committee, JMP and rights and concessions (Items 13-16).

All these topics are related to the management of the plantations. The data are all available in the JMP which is prepared well before the plantation work is started.

The existing legal rights or concessions enjoyed by the villagers in particular B class reserved forests or protected forest areas is to be recorded. This information can be obtained from the nearest territorial forest office. This

information is required to be filled up in case of reforestation and rehabilitation component which can be raised in B Class reserved or protected forests. If the village woodlots have been declared village forests, notification number and date must be recorded here.

(viii) Agricultural Crop (Item 18)

Item 18 is to be filled in if the FFRP component is an agroforestry plantation. If a density plantation, the VFW should note down tree species and density under "NAME" and "YIELD". The yield from the FFRP plots should be given by the beneficiary but the VFW should also try to make an independent assessment in field visits. The local market price of agricultural crop can be obtained by local visits and verified by the VFW. It is to be noted that the agricultural crop and yield for all beneficiaries must be recorded. In case of a "cluster approach" i.e. all landless in a village/hamlet have been made beneficiaries, a special journal/register has to be opened; the plantation journal should then not be used.

In case an agricultural crop has been planted in the village woodlot this is also recorded in this section. An assessment of the yield of this crop and its final disposal must also be recorded in the journal.

Against the names of different species the number actually planted should be recorded. The species-wise survival % is assessed during the month of May-June. If the plantation is started during July 1987, the survival and average height, etc., will be calculated the following year, i.e., during May-June 1988. Maximum height of each species can be recorded by measuring the tallest plant and the average height can be found out by measuring the height of seedlings/saplings of each species on a sample basis.

The VFW should contact the monitoring unit to get instructions on the best way of sampling for this measurement.

2. Plantation Journal - Year 2 after Plantation

A plantation activity is followed up for two years after planting. A separate form of plantation journal is used for this purpose and it is given in Annex 10.4.

2.1 The following explanations are provided for filling in information against some of the items:

(i) Silvicultural Activity (Item 1)

Under this item, the replacements (beating up of casualties) is recorded. However, there is no need to give the species mix of the replacements

(ii) Causes of Mortality, etc. (Item 2)

In assessing the causes of mortality, the VFW would evaluate the percentage of mortality caused by different factors

(iii) Condition of Plantation end of Year 2 (Item 9)

Under the number of plants, the number of replacement plants are actually recorded. The survival percent is calculated before replacement.

3. Plantation Journal -Year 3 after Plantation

This record is similar to the record discussed in para 2 above. A copy of this form is contained in Annex 10.5.

4. <u>Ledger 2 on Expenditure for Plantations Year 1, 2 and 3</u>

This is an important record and a copy is contained in Annex 10.7.

4.1 The VFW keeps all records of expenditure in a special note book. From the records in this book he compiles the data required for the ledger. All expenditure concerning the component under various activities should be recorded against the activity indicating the time of this operation and the amount spent. Both voucher numbers and the dates of expenditure are to be recorded in the remarks column.

In the item "other material", material like fertiliser, implements, fencing material for protection, pesticides, are included. All other costs are given as labour costs. Costs of planting material is obtained from the records of the nursery from which such material is supplied.

4.2 All man days of work concerning the component during the 1st year of operation should be recorded by males and females which further is sub-divided in three categories such as, SC, ST and others. This information can be obtained if the VFW maintains a personal note book where abstracts of day-to-day muster roll are entered.

4.3 For reporting of expenditure and employment opportunities given by the Project during the second and third year after the establishment of a plantation, the same type of ledgers are used with a minor modification i.e. under the item "activity", all the initial planting activities are not present.

5. <u>Annual Plantation Report</u>

The proforma is contained in Annex 10.6. The plantation report is generally compiled annually (November/December) for each social forestry component. All information required for compilation of the report is found in the plantation journal.

The form has three pages, the last page containing the names of species and their survival, percentages, etc. In the year of the plantation, the report is compiled in triplicate by not later than 2 months after the establishment of the component. One copy is submitted to SFS, one to the Deputy Director and the third to the monitoring and evaluation unit in the directorate. The colour of the form for the year of plantation is white. At the end of the first year, a report in the same form is again compiled and this time page 3 of the report is also completed. The colour of the form for the second year reporting is yellow.

A report is again sent in the same form at the end of two years and this time the colour of the form is green. Thus white colour indicates that the report is for the year of formation; the yellow colour indicates that the report is for one year after formation; and the green colour indicates that the report is for 2 years after plantation. The procedure for the submission of the reports in all cases is the same as outlined for the white form.

CHAPTER 11

TRAINING IN SOCIAL FORESTRY

(*S.S. Das*)

A. General Considerations on Training

1. Training Objective

Khemmani* defines training as "a planned communication process which results in changes in attitudes, skills and/or knowledge in accordance with specified objectives relating to desired patterns of behaviour". This definition fits in very well with the training objectives of the Social Forestry Project which involves activities with which the traditional forester is not very familiar. Thus the basic objectives of training in social forestry are to:

Change the attitude of the foresters and make them people oriented while teaching and improving the skills required for various operations and actions in social forestry

Spread the message of social forestry among other target groups important to the Project, and

Change the attitude of the citizens, particularly the rural population, to make them sympathetic towards forests and forestry and teach them skills in forestry operations useful to them.

Thus training is required not only for the foresters engaged in social forestry work but also for other target groups, e.g., villagers, NGOs, etc., involved in social forestry. The Project Document (Phase II) recognises training, extension and related subjects as "key activities in the implementation of the Project. Without an effective and well trained extension organisation all attempts to reach the villagers, get them motivated in the activities will ultimately fail. It is important that the concept of training is transmitted to the villagers, non-governmental organisations (registered as well as non-registered) and other target groups. Without this transmission of knowledge on social forestry aims and techniques, the aim of achieving a self-reliant village forestry will not be reached".

2. Planning and Management of Training

Proper planning and management of training is very important. Most often the mode of training is presentation of abstract concepts in the form of one way lectures for the trainees to memorise and reproduce at written tests. In such cases, course contents are based on impulses from management or top level administration. This method is not always effective. In fact, for certain target groups, it is absolutely wasteful. A better method is that which ensures complete participation and deep involvement of the trainee himself in the training process.

The training process is a "set of interrelated and integrated components forming a system focussing on the trainees and the performance required of them and then making decisions about the course content and choice of media and methods to reach the specific measurable goal".

An ideal approach to planning and management of training comprises the steps discussed below.

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* Dr. M. Khemmani, Training Specialist, UNDP/DTCP, Manila

2.1 Job Analysis of Trainees

Training should be relevant to the trainee's jobs. The first step in training planning is, therefore, to prepare job descriptions of the target groups. It is not sufficient just to prepare a list of jobs a particular target group is expected to perform; the planner should also find out under what conditions and how well a particular job is to be performed. The relative importance of each job should also be determined.

Tasks + Conditions + Standards (qualitative and quantitive) = Ideal job description.

Training planning can be effective only if the planner is armed with all the above information.

Lists of jobs each category of Project personnel are required to perform are available in Chapter 9. Similarly, duties and responsibilities of some other target groups like the Village Forest Committees have also been described. The task lists of other target groups are variable, depending on the tasks entrusted to them. Before planning training for such target groups, the planner should become acquainted with all components of the job description, i.e., the list of jobs, conditions under which the jobs are to be performed, the qualitative and quantitative standards of performance required and the relative importance of each job.

2.2 Training Needs Assessment

After analysing the jobs to be performed by a particular target group, it will be necessary to list knowledge, attitude and skills (KAS) required for performing the job(s) effectively and efficiently. Then the level of relevant KAS of the target group concerned should be analysed and the gap between the KAS required and KAS available should be established. This gap will indicate the training needs of the target group. Training designed for the group basing on such assessment of needs will be economic both in terms of time and money and would also be very effective.

A simple method of training needs assessment is illustrated in Figure 11.1.

2.3 Formulation of Training Objectives

Assessment of training needs will help in formulating the training objective, which should be job related and measurable. According to the definition given at the beginning of this Chapter, training is a process which induces change in the behaviour of the trainee. Thus, the modern method of writing a training objective focusses on the trainee and not the trainer. It lays down what the trainee should be able to do after completion of training and not what the trainer would teach. This is known as behavioural objective which requires a change in the behaviour (KAS) of the trainee which is observable and measurable. Again, the objective should lay down the conditions under which the change of behaviour should be demonstrated and the extent or degree of change desirable.

A few simple examples are:

On completion of training, the trainee should be able to:
- (a) name ten species suitable for planting in dry area with annual rainfall less than 750 mm
- (b) without referring to notes
- (c) with 80% accuracy.

On completion of training, the trainee should be able to:
- (a) describe mixtures of earth, sand and manure used in seedbeds as well as polypots
- (b) without consulting notes
- (c) with cent percent accuracy.

DETERMINING JOB-RELATED TRAINING NEEDS

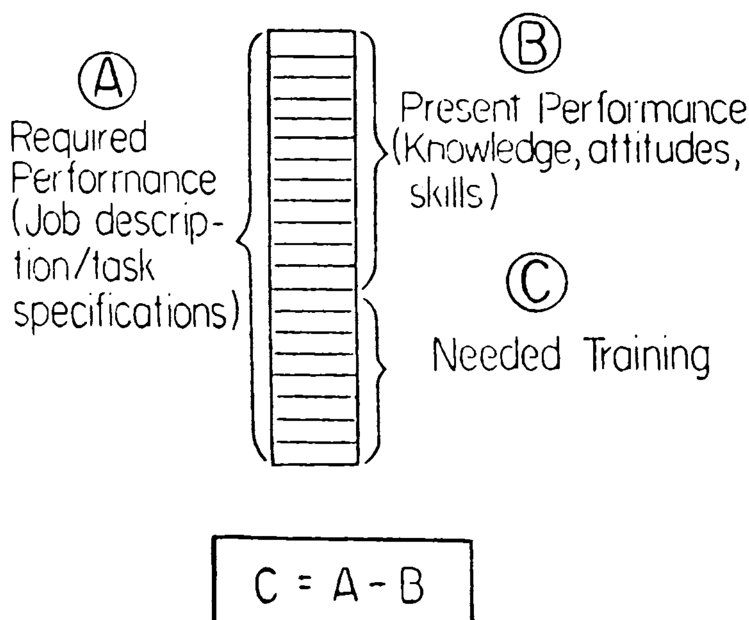


Figure 11.1: Determining Job-Related Training Needs

In the above examples (a) indicates the change of behaviour expected, (b) the condition under which such change should be demonstrated and (c) the desired degree of change. These are observable and measurable changes.

The training objectives should be formulated in the manner indicated above. An objective must:

Describe the final results, specify an end point

Be specific and precise

Describe a change that is measurable or observed

List criteria against which success can be measured or judged

Mention all the essential conditions under which the results can be achieved.

Points (a), (b) and (c) in the examples given above should always be kept in mind.

2.4 Determination of the Type of Training

A decision should be taken on the type of training to be imparted to the target group. It should be decided if it is necessary to train a particular person or organisation before entrusting him with a particular job (preservice training) or train the person/ organisation when already on the job (in-service training). The training usually becomes simpler and less time consuming if the target group is already exposed to the work. The second type of training (leading to "learning by doing") is desirable for target groups entrusted with short duration jobs like laying out a nursery, digging pits or engaged in maintaining plantations. This is the best type of training for adult target groups. Both may be necessary for Project personnel.

2.5 Selection of Contents, Method, Media and Facilities

1) Contents

After analysing the training objectives a decision on course contents is taken. This should cover the detailed KAS required on topics that support the objectives. Nowadays, with knowledge in every field developing rapidly, it is useful to classify the content into the following categories:

(a) What must be known (skills and knowledge essential for proper performance of the basic tasks)

(b) What should be known (skills and knowledge needed in order to perform additional or related tasks) and

(c) What could be known (skills and knowledge that relate to the job, but are not essential).

These can be illustrated by Figure 11.2

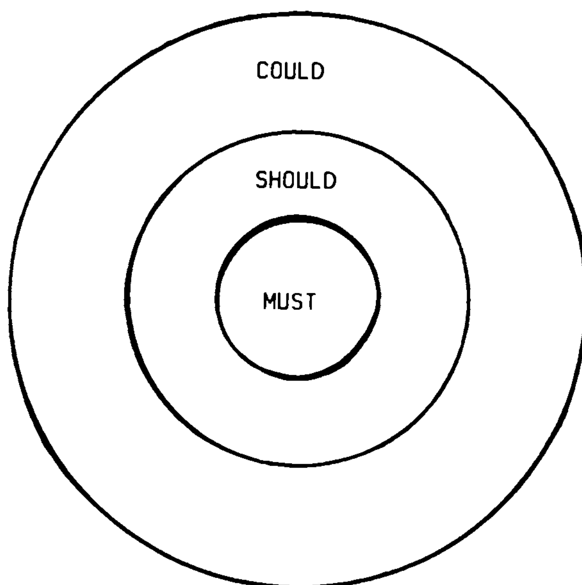


Figure 11.2: Training Contents

This classification will help the trainer to place due emphasis on a particular course content and decide what to teach and in what detail depending on the time at disposal.

After selecting the course content it should be arranged in a logical order or sequence in which the tasks are to be performed. Certain parts of the content will have to be understood, before other subjects can be introduced. Logical order will produce faster training.

2) Method

When the contents of the training course have been selected, classified and arranged in suitable order, then the method of imparting the training should be decided upon, so that the training is enjoyable and effective. The general principle to be followed is that good learning can take place only through active participation of the trainees. It is what the trainees do that is learned, not what the trainer does. The trainer's role should be not only to teach but also to facilitate learning by providing a suitable environment.

Following are some of the ways to obtain trainees' participation:

Trainees should be asked a lot of questions. Questions which they are unlikely to answer should not be asked

Sitting down most of the time with trainees will make the trainer more equal to the trainees (The trainer should, however, occasionally stand or move around to add "LIFE" to the training)

Trainees should be asked to write things on the black-board or flip chart

Trainees remarks, etc., should be written down by the trainer

Encourage questions from the trainees. Other trainees should be encouraged to answer the question(s).

Some examples of training methods are given below:

(a) Lectures

This is the most common method employed for transferring knowledge. This can be very effective if it is accompanied by handouts. The lecture should not be long and boring. The handout should contain all details and the lecture should indicate how to utilise the handout. This will facilitate the trainee to learn by himself, guided by the trainer's lecture. The extent to which a lecture can be effective depends on (i) the subject, (ii) lesson plan, (iii) presentation and (iv) the learners level of understanding and the desire to learn.

(b) Case Study

This is a presentation of a problem based on a specific situation. This method is usual for practising problem solving. It should be meaningful and of interest to the trainees. The following steps should be taken to make this method really useful:

Problem should be explained clearly and completely so as to be understood by the group

Points to be considered for discussing the problem should be outlined

Time for the trainees should be provided in the class to study

Pertinent problem with suggested remedial measures should be discussed in small groups

Conclusions should be drawn carefully

Discussion, contributions and suggestions should be summarised.

(c) Symposium or workshops: These are again, mainly problem solving exercises. The chairman of the symposium or workshop session should be experienced in the subject and the speaker(s) well informed. Adequate time should be provided for each speaker and opportunity provided for question-answer.

(d) Role play and simulation: These are methods used where a change in attitude is intended.

(e) Demonstration and individual practice: These are methods for teaching/improving physical skills. These also include field trips.

As can be seen from the above, different methods are to be used for different parts of the training. The methods should be chosen very carefully so that they are effective.

3) Media Material

Recent research has indicated the following proportions of learning through the different senses:

Sight	83 %
Hearing	11 %
Smell	3.5 %
Taste	1%
Touch	1.5 %

As can be seen from the above research finding, most of the information conveyed is absorbed either by seeing or by hearing. Of these two senses, seeing is about 7 times more effective than hearing. This bears out the idea that when the method of teaching is by lectures, these should be accompanied by media such as handouts and manuals (preferably short).

There will, however, be books to facilitate learning. The lectures should be short and should indicate how to use the above media effectively.

Examples of other non-projected media are:

(i) Real objects and specimens
(ii) Models and simulation devices
(iii) Graphics (charts, diagrams, schematic drawings), posters, printings, photographic prints
(iv) Black board
(v) Flannel boards/magnetic boards.

Then there are the projectable media. Though these are more effective than the former, their use is restricted. Usually electricity and complete darkness are required. Some, like micro-films, cannot be viewed by large audiences. The following are examples of projectable media:

(a) Still pictures:
   (i) Epidiascope for projecting drawings and printings (often enlarged)
   (ii) Overhead projectors - for projecting transparencies
   (iii) Slide and filmstrip projectors
   (iv) Microfilms.

(b) Moving pictures:
   (i) Films with commentaries
   (ii) Telecast (open circuit television)
   (iii) Videoscope (closed circuit television).

Sound media includes radio (broadcasting) and recorded cassettes or discs.

Audio-visual (AV) aids can be very effective in imparting training but they can also be a force for deterioration rather than improvement if they are not chosen carefully. In each instance a teacher may be satisfied that he has fulfilled his task, but he must also ensure that the AV aid has assisted the trainee in the learning process. Before deciding upon a particular AV aid, the teacher must ensure that the:

Topic and aid demand active trainee involvement

Material is appropriate to the audience

Material is substantially sound, i.e., without errors or irrelevances

Material is of good technical quality; poor quality material may produce negative results, and

Cost is justifiable.

The accompanying table (Table 11.1) is a simple guide for selection of media for use in various training situations.

Table11.1: Media Selection Guide For Use in Different Training Situations

Situation	Training Aid	Support Material
1. Group Discussion	Black board Newsprint Pad Overhead Projector	Handout
2. Lecture	Black board Newsprint Pad Overhead Projector Slides	Handout Photos
3. Group or Individual Exercises	Exercise Instruction Worksheets Real Objects or Models	None
4. Case Study	Written Case Study Black board Newsprint Pad Overhead Projector	None
5. Demonstration	Real Objects if Possible Models Slide	Handout
6. Role Play	Written Description of Role to be Played	Handout

2.6 Selection and Training of Trainers

This is a very important step in the training process. This will, therefore, be dealt with in detail in a separate section.

2.7 Developing and Evaluation Process

Evaluation is an integral part of the training process. It determines the extent to which the training objective is being actually realised. In simple terms, evaluation can be defined as:

"A means of identifying the strengths and weaknesses of a particular activity or programme with the aim of making a decision about it".

The decision may be to improve, expand, modify or cancel it or even to leave the programme unchanged if it is considered to be adequate and effective as it stands.

There are four main types of evaluation:

(i) Reaction Evaluation

This measures how well the training programme or any of its components is being received by the trainees, whether it keeps the interest of the trainees alive and whether the programme needs improvement and if so, to what extent.

This can be done by asking trainees questions like

(a) What did you like most about the course or lesson ?
(b) What did you dislike most about the course or lesson ?
(c) Did the course/lesson achieve its objectives ?
(d) How could it be improved?

This type of evaluation should be conducted frequently in short courses almost daily so that improvements can be effected during the training itself. The above questions can be asked informally or set out as formal questionnaire for each trainee to complete. The latter method is preferable as individual reaction, then, is un-influenced and candid.

(ii) Learning Evaluation

This measures change in the trainee's knowledge, attitudes and skills. The training programmes with which we are familiar make elaborate provisions for this type of evaluation. There should, however, be some provision for measuring change in the attitudes of the trainees.

A sample test for attitudes is as follows:

Questions

Please circle the abbreviation that best fits your opinion.

(a)	Villagers' cooperation should be enlisted in protecting the forests.	SA	A	D	SD
(b)	Non-governmental organisations can be entrusted with raising social forestry plantations.	SA	A	D	SD

SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree

(iii) Performance Evaluation

This measures how the trainee's job performance has altered after a period of time as a result of the training. Performance before training is compared with that after training. There should be regular periodic monitoring of the performance of the trainees to evaluate the influence of the training programme on the trainee in relation to his performance in the field. This may be done by using

a) Observation forms
b) Questionnaires suitably designed
c) Detailed reports on work output.

iv) Impact or Result Evaluation

This measures the overall effectiveness of training in bringing about the change in the situation intended through the training programme. This is used to find out whether the problems in an organisation or community have been solved when the trainees return to work and <u>whether this is due to training</u>. This should include pre and post-assessment of conditions and indicators.

If all these four types of evaluation are carried out effectively they will show whether or not the training programme is effective and if the money has been well spent. They will also provide information on the areas of the training programme that need to be improved.

The entire training process can be summarised in Figure 11.3.

3. <u>Selection and Training of Trainers</u>

It is important that trainers (instructors) are selected carefully. Unless this is done, the training becomes just a formality and not an effective one. This aspect is very often overlooked.

It is often difficult to find a skilled trainer. It is necessary to train the trainers in modern and effective methods of training and use of suitable media and facilities. Traits that a good trainer should have are:

(i) <u>A desire to instruct</u>: The instructor must really want to instruct and enjoy doing so. Enthusiasm is infectious and readily transmits itself from instructor to students. So does the lack of it!

(ii) <u>The knowledge of what to instruct</u>: The instructor must know the subject thoroughly. Much of the instructor's knowledge may seldom be used, but it is there when needed

(iii) <u>The knowledge of how to instruct</u>: The instructor must be trained in instructional techniques. There are many techniques, suitable for various fields. The instructor must have comprehensive knowledge about such techniques, the ability to choose the right one, and having chosen it, the knowledge of using it

(iv) <u>An understanding of how people learn</u>: A great deal of research has been done over the years into the way people learn. There are a number of obstacles which act as barrier to learning and there are ways of overcoming them and making the learning process easier, quicker and more effective. The instructor must know about these, including the use of modern media like the AV aids

(v) <u>The ability to communicate</u>: It is not enough for an instructor to know the subject and the instructional techniques. Instructor should be able to communicate to the trainees what he knows. There are people who simply cannot communicate. Some of their faults may be rectifiable by training, others. In order to communicate, the instructor must be able to see the problems through the

trainees' eyes, and thus understand their difficulties. This is what the instructor must do vis-a-vis the learner

(vi) Flexibility: The instructor must be flexible enough to make changes, very often at the last minute, in programme and approach. With the best will in the world and the best management, there will always be crises and unforeseen developments. The instructor will naturally want to avoid too many changes and interruptions in the training but he will be wise to react quickly to any emergency.

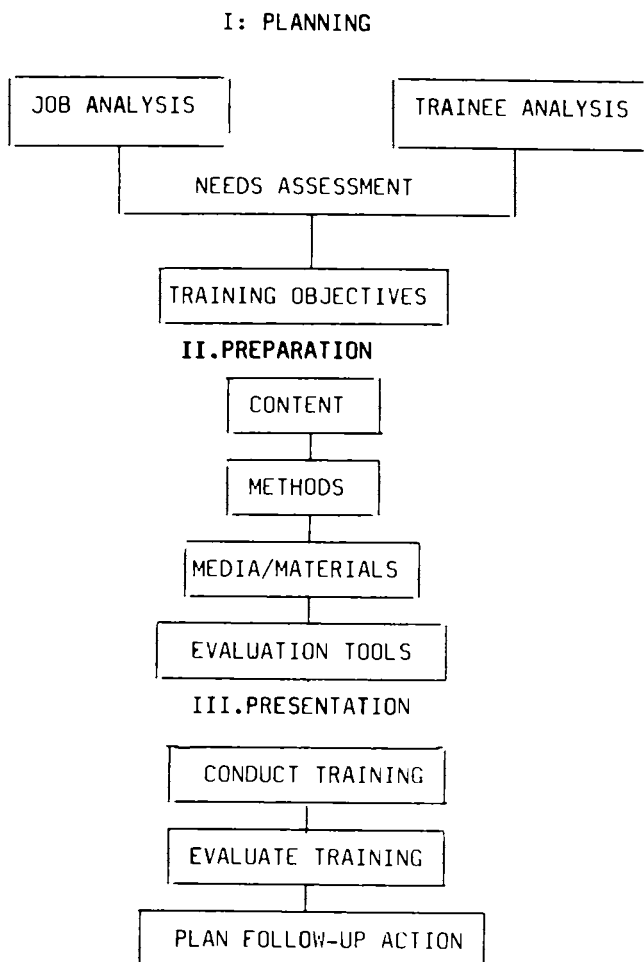


Figure 11.3: The Training Process

An instructor should be given ample opportunity to develop the above traits. Training programmes for instructors should be organised periodically on:

Instructional techniques

Communication process

Use of modern teaching aids, particularly audio-visual media, equipment and facilities

Preparation of simple aids like charts, posters, graphic representations, models, handouts, short manuals, etc.

Preparation of lesson plans

Organisation of demonstrations, field trips and tours

Evaluation plans and techniques.

B. Training in the Social Forestry Project

1. Target Groups

There are several target groups, related to the Social Forestry Project, who require training. These are:

(a) Officials:
- i) Project personnel
- ii) Forest officers outside the Project
- iii) Officials in the district administration, officials of sister government departments.

(b) Non-Officials:
- i) Villagers
- ii) VFCs
- iii) Non-governmental organisations
- iv) School children and teachers.

Besides the above, there is another important target group which also needs to be informed about the objectives, strategies and activities of the Project. The group consists of the Members of Parliament, Members of the State Legislative Assembly, Panchayat Samiti and Zilla Parishad Chairmen, etc.

2. Training of Various Target Groups: Officials

2.1 Village Forest Workers

This is the most important target group among the Project personnel. This group consists of grass-root level functionaries in the Project who deal directly with people. Their training is very important. These functionaries are equivalent in rank to foresters in the Forest Department. They are to be trained in the syllabus prescribed for foresters. This syllabus was revised in 1987. The revised syllabus lays greater emphasis on raising of plantations, ecology and environmental problems and includes a full course on social forestry and extension.

VFWs now working in the Project are of three categories:

i) Trained foresters transferred from the department to the Project and VFWs recruited by the Project and trained according to the old (pre 1987) syllabus for foresters

ii) VFWs trained as per the revised syllabus

iii) VFWs either transferred from the department or recruited by the Project, but still to be trained

VFWs of only category (i) and (iii) above would need training.

(a) Category (iii) Crash Course

The number of this category of VFWs is about 600 out of a total of approximately 760 working in the Project. Thus the demand for training of this category of staff is the highest. Their training is also very urgent. Only one foresters' school in the state located at Bhubaneshwar with a capacity of 40 trainees per annum caters to this training need. It will be impossible not only for this school but also for all the four schools in the state to train all these 600 VFWs even by the end of Phase II of the Project. It was, therefore, decided to run crash courses for the VFWs so that they get some basic training which would enable them to perform their jobs. Eventually these VFWs would undergo the regular training for foresters.

The crash course would be organised at two stations, one for the coastal zone and the other for western Orissa. There would be 40 trainees in each batch at each station. The course for each batch would last 30 days. Simultaneously, regular training of VFWs at the foresters' school at Bhubaneshwar would continue. All effort would be made to train all the untrained VFWs either in the regular course or in the crash course by the end of the second year (1989-90) of Phase II. The course content for the crash course is provided in Annex 11.1.

(b) Category (i) Orientation Course

An orientation course will be given to the VFWs of the above category. The details of this training are given in Annex 11.2. This is only a model and is meant for VFWs who join the Project afresh. Some of these VFWs have already been given some sort of an orientation training. Therefore, at the beginning of the training of each batch, it would be advisable to devote a session or two on training needs assessment as discussed in Part A of this chapter. The course can be modified according to the training needs.

2.2 Social Forestry Supervisors

This is another important target group. These functionaries are equivalent in rank to the forest rangers in the department. All of them are either trained in the regular training course meant for forest rangers or are experienced enough to work as forest rangers. They, however, need a regular orientation training on joining the Project. The details of the training is contained in Annex 11.3.

2.3 Refresher Courses for VFWs and SFSs

Besides the above orientation courses at the time of entry into the Project there would be short refresher courses twice a year, preferably in the months of February and November, for the VFWs and SFSs. These courses will be of a three day duration followed by a days' field trip. These courses will be organised by the Deputy Director preferably at a plantation or nursery site. The course would be conducted by the Deputy Director himself assisted by his specialist/specialists. The concerning Joint Director should attend the training session at least on one of the days.

The aim of these short refresher courses is to:

(a) Keep the VFW/SFS conscious of the Project objectives and their job requirements

(b) Bring them upto-date with the latest technical and procedural developments in social forestry and

(c) Be a forum where ideas and experience gained can be exchanged between people working in the field.

The course contents would be:

i) Recapitulation of Project objectives and review of achievements including protection of social forestry plantations

ii) Recapitulation of nursery and plantation techniques, study of nursery and plantation techniques of new species introduced

iii) Latest developments in agroforestry designs and methods

iv) Review of methods of selection of villages and sites for various project components

v) Selection of beneficiaries for FFRP, issue of tree pattas

vi) Review of mass communication methods, demonstration of visual aids, examination of publicity material

vii) Review of villagers and VFC members' training programme

viii) Discussions of success stories: analysis of causes of failures

ix) Maintenance of accounts, review of expenditure, nursery and plantation journals, submission of reports on progress to the monitoring cell of the division/directorate

x) Drawing up of JMPs distribution of benefits

xi) Problems of rural women particularly those dependent on forests for their livelihood

xii) Efficient methods of using wood fuel including improved methods of cooking to conserve fuel.

2.4 Senior Project Personnel - Orientation Course

Senior Project personnel include all Project officials down to specialists. All these officials (except for those of non-forest categories) have already received basic forestry training or have gathered sufficient experience in forestry appropriate to their levels. They, however, need orientation training in social forestry and allied activities when they join the Project. Details of this training are contained in Annex 11.4

2.5 Training and Seminars outside Orissa

The Joint Directors, Deputy Directors and Specialists may also attend orientation courses organised by the National Institute of Rural Development, Hyderabad and the Indian Institute of Forest Management, Bhopal. Senior Project personnel including specialists may also attend special courses related to social forestry organised by reputable institutes outside Orissa. At least 3-5 persons from the Project should be sent to each course so that the Project is benefitted by such training. The Director, Joint Directors and Deputy Directors may attend regional or national seminars on social forestry or on topics having direct bearing on social forestry. The Deputy Director, Training will coordinate participation of Project personnel in these trainings, seminars and workshops.

2.6 Overseas Training

SIDA organises participation of senior Project personnel including specialists in training abroad on matters directly related to Project activities. This is done in consultation with the Government of India (National Wastelands Development Board). Participants are selected according to identified needs and Government of India guidelines. SIDA also organises participation of senior Project officials in international seminars on social forestry.

2.7 Internal Seminars and Workshops

Periodic seminars should be organised in the Social Forestry Training Institute (SFTI) to discuss and disseminate new concepts, new findings, recent developments and new ideas concerning social forestry, new information gathered by participants in training

and seminars outside Orissa and abroad. Workshops may be held to devise means of putting these new concepts into practice. Similarly, seminars may also be organised to communicate with personnel outside the Project about what is happening in social forestry. The seminars and workshops should be attended by all categories of project staff. The social forestry newsletter should be used in this context as a forum for spreading important findings.

2.8 Forest Officers Outside the Project

It is necessary that officers of the parent forest department are kept informed about the Project and its activities. A one-day seminar may be organised in the SFTI every six months or so, to which forest officers of all ranks should be invited. The number of participants in such seminars should be around 30 (thirty). The following topics may be discussed:

(a) Concept and aims of social forestry

(b) Objectives, strategies and approach of the Social Forestry Project

(c) Project components and the type of area where each component is implemented

(d) Peoples' participation in the Project

(e) Organisation and management

(f) Legal support

(g) Need for cooperation by forest officers outside the Project

(h) Applicability of Project concepts in normal departmental works.

2.9 Other Groups

It is essential that senior officers in the district administration like the Collectors Additional District Magistrate in charge of development, District Development Officer, BDO, etc., get an idea about the forests of the state, their problems, the philosophy of social forestry and some details of the Social Forestry Project. District Development Boards in which all the above officers participate and which are also attended by MPs and MLAs of the district are held quite frequently. It will be ideal if a seminar on social forestry is held in one of the extended meetings of the Board. Otherwise, the above officers may be assembled at the SFTI in batches for the seminar. Alternatively, the seminar can be organised at the district headquarters or any other suitable place.

The topics for the seminar would be as below:

i) Overview of Orissa's forests - their problems, availability of timber and fuel as projected against estimated demands

ii) Philosophy of and strategy for social forestry - social forestry for the development of village communities

iii) The Orissa social forestry project:

Project objectives, policies, strategies and approach

Project components

Organisation and management

Legal support - Orissa Village Forest Rules, 1985

Role of district development administration in supporting the Project

iv) A field trip to nearby social forestry nurseries and plantations.

Workshops on the above lines may also be organised by the Deputy Directors or Joint Directors for functionaries at various levels of sister departments like Agriculture, Horticulture, Soil Conservation, Tribal and Harijan Welfare, Panchayat Raj, Health and Education.

3. <u>Training of Non-official Groups</u>

3.1 Villagers

Peoples' participation is a pre-requisite for implementation of the Project. The villagers, who are the main actors in the participatory process, should be properly trained. This training as well as that for VFC members and NGOs at village level would be organised at the Deputy Directors' level. A Specialist in every district/division will be exclusively in charge of the village level training and extension. The VFW would conduct the training under the supervision of the SFS and guidance of the Specialist.

NGOs specialising in training activities would also be utilised for village level training under the guidance of the Specialist, Training and Extension.

The typical contents of a villagers' training programme is given in Annex 11.5.

3.2 VFC Members

The general comments under training of villagers also apply to the training of this target group.

A typical course for VFC members is given in Annex 11.6.

The training should be through village seminars conducted by the VFW under the supervision of the SFS and guidance of the Specialist, Training and Extension.

One day should be spent on a visit to a successful social forestry plantation and a good nursery.

Besides the above training, visits of VFC members to other districts of the State and even outside the State may be organised where they can study working of the Project in other districts, as well as the working of other development projects.

3.3 Non Governmental Organisations (NGOs)

(a) A module for training of NGOs in various kinds of social forestry operations is contained in Annex 11.7. The training method would be short lectures with handouts, demonstration, seminars and field visits.

The training will ordinarily be organised by the Deputy Director concerned. While planning training for NGOs the following exercise should be conducted:

Analyse the jobs entrusted to the NGOs
Analyse the level of knowledge of the NGOs in the techniques required for the jobs
Determine the training needs of the NGOs
Select content, methods, aids and evaluation
Prepare for field visits.

The training may also be given to selected NGOs at the SFTI once it is fully organised.

(b) Workshops and Seminars

Workshops and seminars may be organised in each social forestry division at least once every year in which all NGOs engaged in social forestry work may participate. In these workshops/seminars, all technical and operational details, problems, constraints and other connected matters may be discussed. Details of the workshops/seminars should be recorded. All discussion should lead to definite recommendations, which should be forwarded to the Regional Joint Director and Director for their consideration. The Deputy Director concerned should take prompt action in matters within his competence.

(c) Visits of participating NGOs may be organised to an area/areas where an NGO has accomplished an operation successfully. This will act not only as an extra incentive to the successful NGO but also will give the visiting NGOs a chance to examine the mode of working and reasons for success. These visits may be organised within the district/division or outside. A social forestry functionary not below the rank of social forestry supervisor/specialist should accompany the visiting NGO to facilitate analysis of work, results, maintenance of records, etc., at the place of visit.

3.4 School Children

This is an important target group. In this critical period of serious environmental degradation and acute scarcity of essential forest products, the future citizens of the country should be acquainted with the problems, importance of environmental conservation and the ways of achieving it from their very childhood. Social forestry should form a part of the regular school syllabus. In addition, the school children should be given a few lessons to initiate them in the following topics with the help of AV aids:

(a) General utility of forest; forests and environment
(b) Why should trees be planted
(c) How to raise seedlings for tree planting
(d) How to plant trees and look after them
(e) Social forestry project objectives and participation of school children.

It would be better if the children are taken to a nursery and a plantation site for demonstration of nursery and plantation techniques. Alternatively, a small nursery can be raised within the school compound which will not only be used for practising nursery work but also be a source of some small income to the school. The project may supply the nursery material and utilise the seedlings raised in the nursery on due payment.

3.5 Peoples Representatives at National, State, District and Panchayat Samiti Levels

These are the Members of Parliament and of the State Legislative Assembly, Chairmen of the Zilla Parishads and Panchayat Samitis. This is also an important target group which should be well acquainted with the Project activities. They may be taken to social forestry plantations and nurseries where activities of the Project should be explained to them. These visits may be organised region wise by the Regional Joint Directors. The Deputy Directors may also take care of the Zilla Parishad Chairmen and the Panchayat Samiti Chairmen.

4. Teaching Materials, Aids and Facilities

4.1 Materials

Teaching material could consist of small manuals prepared by the Project. Other teaching materials like species notes and extension and publicity materials should also be prepared by the Project both in Oriya and in English. Until these standard teaching materials are ready, the Specialist, Training and Extension in each district/division should prepare these materials under the guidance of the Deputy Director.

4.2 Aids and Facilities

Part A of this chapter deals in detail on training media and aids. These media/aids should be chosen carefully. The best will be indigenously prepared visual aids like charts, graphs, posters, enlarged photographs, etc. When planning to use sophisticated aids like slide projectors, suitable sources of light other than electricity (when electricity is not available) should be explored. When planning training of any target group facilities available locally should be thoroughly explored and fully used. The planner should think of improvisations if any essential facility is not readily available.

5. The Social Forestry Training Institute

It is proposed to establish a Social Forestry Training Institute. This Institute will take charge of the following training:

(a) Core (forestry) training of VFW
(b) Crash orientation training of VFW
(c) Orientation training of all categories of Project personnel
(d) Seminars for other target groups (officers of district administration, other sister departments, etc.)
(e) Internal seminars and workshops for Project personnel.

6. The Training Board

The Government has instituted a Training Board for social forestry under the Chairmanship of the Principal Chief Conservator of Forests. Besides the Director, Social Forestry and other representatives of the Project, representatives of the Orissa University of Agriculture and Technology Utkal University and the Forest Department of the State Government are members. This Board exercises full powers in administrative, financial and educative matters.

CHAPTER 12

MONITORING AND EVALUATION

(*H. Egneus, B.K. Patnaik*)

A. The Concept of Monitoring and Evaluation in Social Forestry

1. Introduction

Any person or organisation involved in planning or implementing any work needs to know what will happen or is happening. In most cases, this knowledge is easy to obtain and only certain types of data are needed to make good decisions about how to act or proceed. But as the scale and complexity of an undertaking increases, and the aims of the work become multi-dimensional, the collection of appropriate facts about what is happening becomes a necessity. Different management systems based on a collection of data have, therefore, been used and to varying degrees been successful in supplying the organisations/individuals with the necessary feed-back to make proper and right decisions. It is therefore not surprising that for the social forestry activities in Orissa a special system to find out what is happening has been introduced.

Almost all social forestry programmes:

a) Have well-defined social, ecological, physical, economic aims
b) Are large-scale decentralised operations
c) Consist of a number of different forestry operations
d) Are time bound
e) Are financially supported by the State.

The demands on an information collecting system which can deliver data on these issues to different sectors or agencies is great. In Figure 12.1, these demands are summarised.

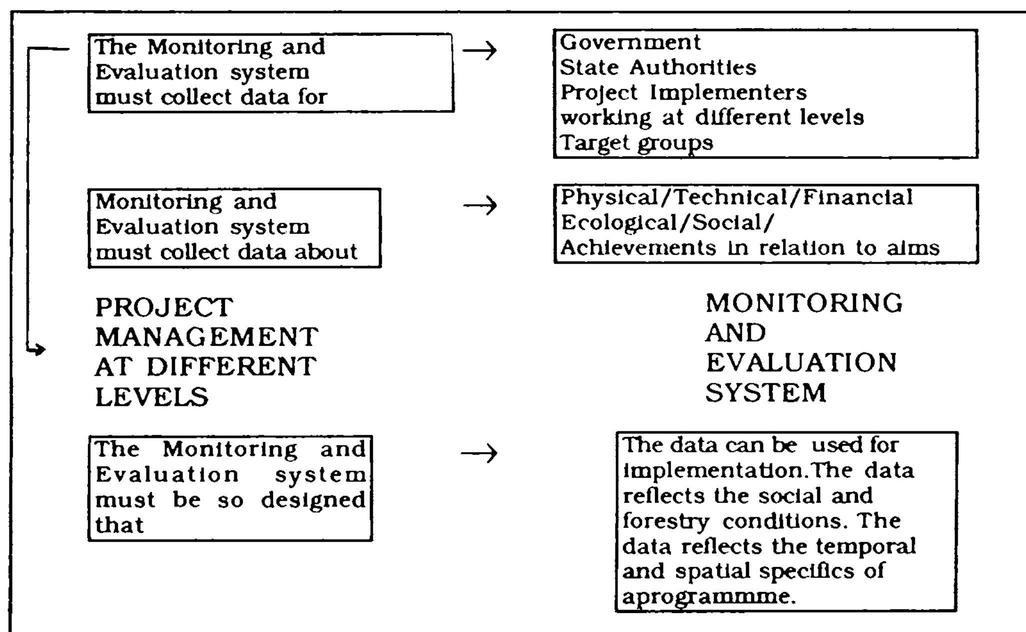


Figure 12.1: Demands on a Monitoring System

Depending on the time perspective, promoters and implementers will look upon the (monitoring and evaluation) activities in different ways. Thus, the demand on the quantity and quality of data will differ among the personnel implementing different sets of activities, but for all Project personnel an effective feedback of data is most important. The data must then be of such quality that decisions on changes in the management of the Project or a specific activity can be taken at short notice.

Another important aspect of the monitoring and evaluation system is that the system will, if properly designed, deliver information about what is happening almost continuously. This is important as projects, which do not have a properly functioning data collection system, base their decisions on impressions from random field visits and occasional studies or the opinions of different actors.

The primary role of monitoring and evaluation as related to social forestry is, therefore, to improve programme or project implementation so that the aims of the said programme/project can be met. This is done by monitoring the progress of the programme/ project and evaluating the results against the aims.

There is a clear difference between what falls under the two headings "monitoring" and "evaluation".

By monitoring is meant the continuous measurement of the results/effects of implementation of the programme/project. Reports are prepared on various aspects such as financial, physical, social and ecological activities. Existing reporting systems form an important part of this system.

By evaluation is meant the assessment of the results of a programme/project. There are a large number of issues which can be assessed such as the overall progress of an undertaking, the fulfilment of social, physical, financial and ecological aims, the effects of the project on specific target groups, the working of the staff, etc.

There are two types of evaluations: one taking place during an ongoing programme/project and the other being an ex-post-facto evaluation, i.e., taking place after the programme has been partly or wholly completed.

Devising a monitoring and evaluation system for social forestry is not difficult because the base for an information collecting system already exists. This is in the form of a plethora of proformae, journals and reporting systems present in almost all organisations. The first task of any monitoring unit is therefore to survey the existing reporting systems and use or modify parts of these systems which are applicable for the present activity. A large number of such forms/returns have been prescribed for the Social Forestry Project in various chapters of this book.

For an extensive treatment on monitoring and evaluation the reader is referred to the excellent GOI/FAO/World Bank publication "Monitoring and Evaluation of Social Forestry in India - An Operational Guide". In this publication almost all aspects of the issues related to monitoring are discussed in detail and proformae for undertaking monitoring of different social forestry activities are presented.

2 The Monitoring System

2.1 Structure

In the Social Forestry Project in Orissa, the monitoring and evaluation organisation has the following structure:

The Monitoring and Evaluation Unit of the Project is under the charge of a Deputy Director who functions under the Joint Director stationed at the directorate; work descriptions of the personnel working in the unit are contained in Chapter 9.

The staffing structure of this central unit is shown in Figure 12.2. There is a Project Monitoring Board with all necessary administrative and decision-making authority. The Board discusses various monitoring issues of the Project and decides on special monitoring or evaluation studies to be undertaken by outside agencies having requisite competence and skill.

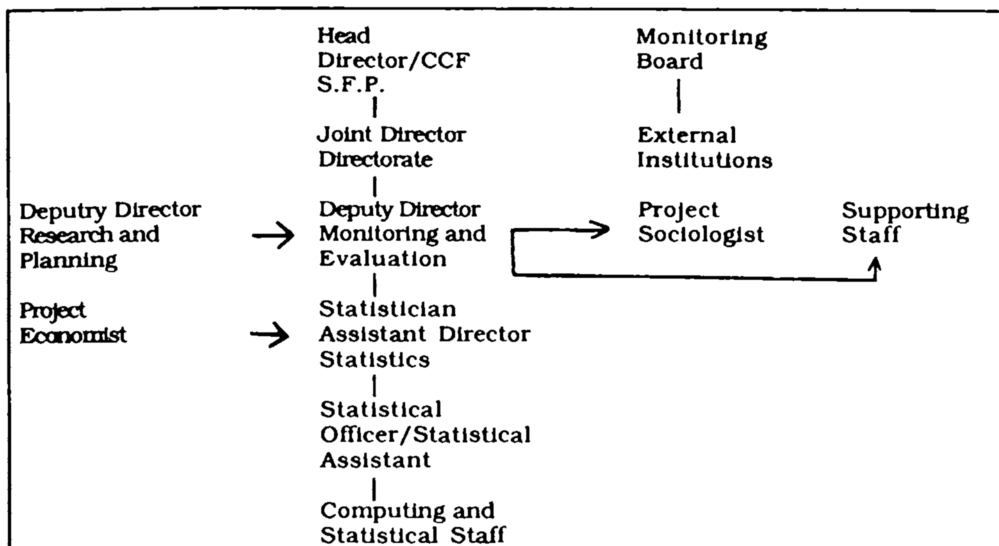


Figure 12.2: Structure of the Monitoring and Evaluation Unit at the Social Forestry Directorate

Monitoring and evaluation staff is also posted at the district level. They are the collectors and compilers of information on day to day activities taking place through journals, reports, etc. They are also in-charge of training SFS/VFW/VFC/NGOs on issues related to monitoring. In case of special evaluation studies, they assist in solving practical problems associated with such studies.

At the village level, a monitoring system supports the VFC. The system helps the VFW and the VFC to identify the constraints/weaknesses in the constitution and functioning of the VFC and to evaluate its strength and weaknesses for undertaking the responsibilities of management of community plantations and sharing of produce. It also helps to monitor other on-going activities such as training, physical achievements, protection, etc. The village resource plan presented in Chapter 5 and the evaluation questionnaire presented later in this Chapter are important monitoring instruments at the village level. These two data bases, in combination with the JMP, the nursery and the plantation journals, form the cornerstones of monitoring at the village level.

2.2 Monitoring Parameters

Monitoring of Project activities would, as far as possible, be made through measurable indicators which are linked with goals and targets enumerated in the Project. A tentative list of physical, financial, technical and social indicators is presented below:

a) Monitoring of Nursery Activities

Number and location of Project and NGO nurseries

Number of seedlings in each category of nurseries and species wise break up

Number of seedlings raised in NGO nurseries and purchased by the Project under buy-back arrangement

Number of seedlings distributed/planted under different components from the nursery

Name of private agencies engaged in collection of seed and quantities of different types of seeds collected

Employment opportunities created

Number of private nurseries, seedlings raised and seedlings sold from these nurseries.

b) Farm Forestry Activities

Distribution centre, name of farm forestry beneficiaries and name of the villages

Categorisation of beneficiaries into different delivery groups (1-50, 51-100, 101-250, 251-500)

Categorisation of beneficiaries (receiving 100 and more seedlings) into various target groups (Small/marginal/medium and big farmers)

Number of seedlings planted in blocks/field bunds/other category

Survival percentage of distributed plants under each of the above category

Number and name of NGOs promoting farm forestry.

c) Plantation Components

Community plantations

Location and site of various plantation components raised

Number of community plantations raised for hamlets

Number of villages, Gram Panchayat and CD Blocks involved

Areas planted/reforested/rehabilitated

Expenditure incurred compared to approved norms

Number of surviving plants and their average height and girth after each year upto the 3rd year after plantation

Quantitative aspect of harvested forest produce including intermediary crops/yields.

d) Forest Farming for Rural Poor (FFRP)

Number and area of agroforestry models/density models

Number and category of beneficiaries rehabilitated under FFRP in non-tribal districts

Number of tribal villages adopted and tribal beneficiaries

Number of beneficiaries raising forest crop in lieu of agricultural crop under agro-forestry model

Quantity, value and type of agricultural crop raised in FFRP plots

- Quantitative aspect of forest produce/intermediary forest crop harvested
- Mode of marketing of forest produce harvested

Employment opportunities given to beneficiaries and their family members in FFRP plots

Prices of forest produce through quarterly observation in selected markets.

e) Social Goals

Number and location of NGO nurseries (nursery raised by school children, family nursery, Yubak Sangh, Mahila Samiti members, small and marginal farmers, VFC, voluntary organisations, etc.)

Number and composition of VFCs

Number of meetings of each VFC and its effectiveness

Participation of VFC/Villagers in protection and management of plantation

Types of measures taken by VFC to ensure protection

Number of JMPs signed

Distribution mechanism spelt out in JMP and adopted in practice

Employment opportunities categorised into social classes, men and women

Number of tree pattas granted/benefits accrued to different social target groups

Number of NGOs (local and professional) involved in Project activities

Pattern of utilisation/distribution of forest produce

Participation/involvement of beneficiaries in protection and management of their FFRP plots

Number of visits by VFW and training imparted to farm forestry beneficiaries

Number of women headloaders given alternative income opportunities.

f) Training/Extension Goals

Number of VFWs trained, both in regular forestry and extension methodology

Number of SFSs trained in extension

Number of VFCs trained, duration and contents of training

Number of VFWs/SFSs trained in monitoring

Number of training workshops organised for NGOs

Number of inter-district/inter-State visits and number of delegates in such visits

Number of study tours in India and abroad

Number and type of special training imparted to different categories of field staff

Number of workshops/seminars on Project performance

Designing curricula and modules for training of different target groups

Expenditure on different types of training

Impact of different modes of publicity campaign.

2.3 Mode of Operation

The officers and staff in the Monitoring and Evaluation Unit receive training in questionnaire and survey design, sampling methods, interview methods, statistical analysis, methods in qualitative rural research, data processing and on use of micro-computers. Micro-computers are used to facilitate storage, retrieval and reporting as well as re-arrangements of the data at different levels of aggregations. The computer facility should be extended to district level for creation of a more systematic and uniform data base.

The guidelines for monitoring and evaluation of social forestry projects prepared by the Government of India are used while designing a monitoring system for the Project.

As the project has a number of plantation components and the largest expenditure is incurred on these activities, the major monitoring exercises must assess what is happening with regard to the plantations.

2.4 Returns used by Monitoring and Evaluation Unit

Annual returns collected from the divisions by the Monitoring and Evaluation Unit in the Directorate are:

1) Location-wise nursery statement (collected in April):

Name of the Range	Name of CD Block	VFW (HQ)	Name of Nursery	Type of Nursery (1)	Production Target (in lakh numbers)
1	2	3	4	5	6

(1) Departmental (permanent/temporary)
Kisan (landless/marginal)
Family (private nursery)
School nursery
NGO nursery

2) Nursery Estimate for the Year (collected in July):

Name of Division

Number of Seedlings Raised in '000

Name of Range	Departmental Nursery		Private (Landless) Nursery (Kisan) (Landless or Kisan) (Others)	Private Nursery
	Permanent	Temporary		
1	2	3	4	5

School Nursery	NGO Nursery	Total Number of Nurseries	Total Number of Seedlings	Remarks
6	7	8	9	10

3) Species wise composition of the seedlings (collected in July-August):

Name of — Seedlings raised (in lakh numbers)

Division	Range	Fuelwood	Small Timber	Fruit	Fodder	MFP	Ornamental	Total
1	2	3	4	5	6	7	8	9
	Total							
Percentage of	Total							

4) Physical achievement during the year (collected in September):

Name of District/Division

Name of Range	Name of CD Block	Name of Gram Panchayat	Name of Village	Village Map No. (as per census record)
1	2	3	4	5

Achievements under various components (in ha.)

Village Woodlot	Barren Hill	Strip Plantation	Reforestation of degraded forest	Rehabilitation of depleted forest
6	7	8	9	10

Institutional Plantation	FFRP (Agro-forestry)	FFRP (Density)	FFRP (Tribal Intensive)	Farm Forestry (in lakh nos.)
11	12	13	14	15

5) Farm forestry requisition form:

The requisition form will be discussed at the meeting of the VFC/ villagers during January/February every year. The intended farmers and beneficiaries who are interested to take more than 100 free seedlings should furnish their species wise requirement in the form given in the Annex 12.1. It should be in Oriya language. This process facilitates planning of Farm Forestry nurseries.

6) Farm forestry report for the year (collected in September/ October):

Name of District/Division

Name of SF Range	Number of Disribution Centre	Number of Mauzas/ Villages where F.F. component has been operated	Total Number of Participants who have taken seedlings for farm forestry			
			1-50	51-100	101-250	251-500 & above
1	2	3	4	5	6	7

Total	Total No. of seedlings taken (lakhs)	Total Area to be planted (lakhs)	SPECIESWISE % Fuel wood	Timber	Fruit	Fodder	Ornamental	Others
8	9	10	11	11	13	14	15	16

(N.B. Rangewise abstract should be furnished)

7) Information on economics of FFRP (collected in February of 2nd year of formation):

Name of District/Division

Name of Range	Name of Village	No. of beneficiaries & their names (SC/ST/others may be indicated)	Area allotted to each beneficiary (in ha.)	Agricultural crop raised
1	2	3	4	5

Yield in unit from different agricultural crop/interim yield from tree crops	Prevailing market price of different agricultural produce/interim yield from tree crops	Total financial benefit to each beneficiary	Remarks (Wages paid)
6	7	8	9

8) Operational area details:

Name of district	No. of SF range	No. of CD blocks tackled	No. of villages/location covered	
			Plantation/ Rehabilitation Components N + R = T	Only Farm Forestry
1	2	3	4	5

Number of VFCs formed		Number of JMPs Signed	Number of Beneficiaries	
New	Repeated	(so far)	Under F.F.	Under FFRP
6	7	8	9	10

B. The Evaluation System

1. Issues

1.1 Evaluations can be made in response to specific questions raised during the development of a project; to tackle issues where greater insight is needed, or to look into issues which are critical for the management of the project. In principle, there are no areas within the sphere of the project which should be excluded from studies or evaluations.

1.2 Evaluations can, as mentioned in the introduction, be of concurrent or ex-post-facto nature. The ex-post-facto types of evaluation which generally are based on massive collection of data and using a large number of investigators are not treated here. So also the special types of post-evaluations carried out in the form of research studies on different aspects of a programme/project.

It should however always be kept in mind that a study or evaluation of an ongoing activity is operational in nature to enable mid-course corrections to be made.

1.3 For ongoing evaluations several approaches are generally used. The two most common ones are (i) special studies on specific aspects of the progress of a project and (ii) major assessments covering large segments of the project. If studies are undertaken they are

either done by the Monitoring and Evaluation Unit, or agencies or persons outside the Project as decided by the Monitoring Board of the Project.

The crucial issue is that whatever study is undertaken, it has to be carefully designed to yield the information needed by the implementers of the Project.

1.4 There are a number of general principles which must be kept in mind before undertaking any type of evaluation study. The Monitoring and Evaluation Unit must therefore carefully look at:

a) Who is to be responsible for the study and will the undertaking of the study interfere or disrupt other ongoing monitoring and evaluation activities? This is an important issue, as Project personnel put in-charge of a study must be given the proper authority and time to carry out the study. If, however, time, authority and resources are not forthcoming, the chances for a successful study are limited

b) What is the aim of the study? The Monitoring and Evaluation Unit must be convinced that the study is worthwhile conducting. Sometimes different studies are decided upon and designed from outside the programme/project and imposed on it. Such studies are not worthwhile unless they have a direct bearing on attainment of project objectives

c) The time frame of the study must be clearly defined. If a study is worthwhile, it is worth completing within a specific time frame, so that the data can be utilised. It is, for example, no use collecting data on the survival of plants if the results are not available in time for modifying the strategy for next year's planting programme

d) The investigators in a study must be properly trained and well motivated and competent for the study

e) The project/programme must ensure that the resources and cooperation which are necessary for a field investigation are forthcoming

f) The conceptualisation of the study must be done well in advance before the start of the study and suggestions about the nature and content of the study must be brought in from the field. This point is seldom kept in mind in planning a study. Very seldom suggestions or views on studies to be undertaken are invited from target groups or field workers at the lower levels

g) The study must be planned so that the results of the study are disseminated to all programme/project personnel and target groups as soon as possible. In a large number of cases, delivery of the report is seen as the final step in the monitoring process. This must not be so; reports must be discussed and important decisions taken on the findings to improve the concerned activity and performance.

1.5 Below is given a checklist which could be used for the planning of ongoing evaluation studies. The checklist should not only be used by the Project management, but also be given to all Project personnel or parties interested in following what is being done in the field of monitoring and evaluation.

Checklist 12.1: To be used when planning an evaluation

(A) An yearly plan for evaluation studies is prepared. The need and how the results of the study are to be used are specified. This plan is submitted to all districts and all SFSs/VFWs and a large number of VFCs are asked to comment on:

a) The need for the study
b) The use of the results from the study
c) Any evaluation to be added to the list.

The M and E Unit then prepares a list of studies having a high priority.

(B) The M and E Unit prepares a terms of reference for a study to be undertaken. Here the following items are specified:

a) Aim
b) Time allotted
c) Delivery of the final report
d) Tentative cost
e) Methodology
f) The size of the study, i.e., number of villages/districts/ plantations/villagers, etc. to be studied/sample size
g) Inputs from the Project side
h) Reviews from the project side.

(C) The M and E Unit decides who is to undertake the study. If submitted to agencies/consultants outside a programme/project these should be professional, well known and "tested" consultants who should be asked to submit their proposals. The consultants must always be asked to submit:

a) Budget for the study
b) Plan for delivery of results
c) Methodology
d) The statistical treatment and determination of the validity of the results
e) How they are solving practical issues such as
   i) designing and testing of questionnaire
   ii) training of field investigators
   iii) investigative problems likely to be faced
   iv) verifying and testing of field results
   v) field supervision
   vi) who is responsible and in overall charge
f) Their participation during and in presenting the results of the study. A proper agreement must be drawn up between the Project and the Consultant.

(D) If the study is to be undertaken by the M and E Unit, the procedure in (B) and (C) above is also followed. The only difference is that any final negotiation and signing of contract does not take place. The most important issue is who is to be in-charge and have the authority and responsibility for undertaking the study. This must be made clear. It is important that this procedure is adhered to even in programmes undertaken by the Project for two reasons:

a) Criticism from outside about bias and non-competence can be met
b) Future studies are easier to do as models for training and project formulation will have been developed.

It must be stressed that one important aspect of the planning of M and E governed activity is to give a sense of participation to the field investigators, to give in-depth training to the staff in all possible field situations and to make them understand the importance of the study from management point of view.

(E) Meetings with consultants and or Project personnel participating in the studies are held where:

a) All practical problems
b) Training issues
c) Methodological issues are discussed.

(F) Training of field investigators and Project leaders must take place; this not only includes training in methods but also how the actual field work is to be done. Investigators not fulfilling the standards set by the organisation/Project must be relieved.

(G) All Project personnel are informed about the study which is to take place. They are to be told about the aims of the study and asked to cooperate. This is important as a negative attitude from villagers or Project personnel makes the study difficult to conduct.

(H) During the time period alloted for the study, the M and E Unit supervises the work being undertaken. In the case of consultants specific dates when progress reports are to be delivered should be written into the contract.

(I) The M and E Unit prepares a dissemination/discussion plan for each study. In this plan:

a) A distribution list of who should be asked to participate in a seminar(s) is compiled

b) A distribution list of who is going to submit written commentary to the study is compiled

c) A plan for its printing and distribution is prepared if the study is going to be published,

2. <u>Evaluation Through Questionnaires</u>

2.1 This is undoubtedly the most common type of study or evaluation undertaken. In the Project, majority of all studies being undertaken are based on special questionnaires. The reasons for the extensive use of questionnaires are many but the most common are:

a) If aims of the study are clear, it is possible to formulate exact questions to find out what is or is not happening

b) The personnel who are to undertake the actual field work need only be employed short-time and need little training

c) A large number of respondents/villages/target groups can be investigated

d) Exact time limits can be prescribed for the work

e) It is possible to treat the data in a statistically acceptable way

2.2 The drawbacks of such evaluations are of a more fundamental nature like:

a) The rigid structure of the questionnaire means that a number of issues might not be investigated or gaps in knowledge might remain

b) Mistakes in the design of the questionnaire are difficult to rectify once the training period is over

c) The investigators, in most cases being under time pressure, cannot follow new lines of thinking or go in depth into a specific issue

d) There might be a communication gap. Due to the short time the investigator spends with each respondent, the validity of the data is difficult to judge

e) It is assumed that the designers of the questionnaires would have the knowledge about the village encompassing almost all aspects, and that they would be able to anticipate problems and issues which are posed by the villagers/respondents - a situation which is very unlikely

f) The respondents may get bored if the questionnaire is too long

g) Some of the questions may hurt the feelings or the sentiments of the respondents or they may not like to respond to certain questions.

3. Evaluation As Monitoring Instrument for VFW

3.1 One thing which is frequently overlooked when discussing evaluations is that an evaluation can be a strong instrument for teaching and motivating Project personnel.

If the study is undertaken during a number of years, the development of an activity or performance of certain actors can be followed.

Annex 12.2, 12.3 (A-F), 12.4 and 12.5 contain a set of questionnaires concerning Project activities in a village. These questionnaires must be distributed to all personnel working in the Project because it gives the SFS/VFW and other personnel an idea about what is expected from them in their fields of activity. Inspite of the fact that the questionnaires are very detailed, it cannot be claimed that they touch all the aims and objective of the social forestry programme thus many silvicultural and ecological issues do not find a place there.

It is necessary that each Deputy Director in one of the monthly meetings with the SFS/VFW spends one day on discussing these questionnaires, and initiates an in-depth discussion on the issues taken up there. The VFW and SFS should also be made aware that any of their villages or plantations might be selected for an evaluation through these questionnaires. This would enable the records to be kept upto date.

No investigator should use the questionnaire before having taken part in both a desk training and field training exercise. This is necessary because there are a number of technical details, Project components, and Project management details which must be properly assessed. It is also necessary to use a large number of female field investigators for this evaluation because of the strong emphasis on women in the Project.

The questionnaires are divided into four parts. The entire text of the questionnaires is presented, in Annexes as below:

Questionnaire 1.	Registration and Background Information (Annex 12.2)
Questionnaire 2.	Woodlot Plantation (Annexes 12.3 A to 12.3F)
Questionnaire 3.	Farm Forestry (Annex 12.4)
Questionnaire 4.	Forest Farming for The Rural Poor (Annex 12.5)

4. Commentaries to the Questionnaires

4.1 Registration and background information (Questionnaire 1)

This part is very straight forward and is only a compilation of data about the village and the respondents. The data is necessary for the interpretation of results obtained in questionnaires 2 to 4. The special importance lies in that one can find out whether there are any differences in how people are seeing the Project, any differences in the motivation and training of people, any differences in how the produce is managed and distributed. The selection of respondents and villages will be very important and must follow the criteria set up to treat the collected data statistically, and to take the large variations in ecological and social conditions prevailing in Orissa into consideration.

4.2 Woodlot plantation (Questionnaire 2)

In this questionnaire a large number of aspects related to the community plantations are investigated. It should be noted that this part of the questionnaire can also be used for evaluating the performance in the reforestation component. The emphasis in the

questionnaire has been put on assessing the Project activities as related to community plantations.

It should be noted that the questionnaire has been so designed that a number of questions are repeated with minor changes in phrasing in different parts of the questionnaire. The reason for this is that an internal validation of the data can thus take place.

4.3 Knowledge of establishment of woodlot (Annex 12.3A)

In this introductory part, some basic data is collected; the most important are whether the respondents know anything about the aims and the management of the plantation. This information is crucial as one can assess whether the participatory aspects of the project have been brought home to the people. The VFWs/SFSs should when reading this part, be made aware that all types of respondents, women, members of the SC/ST should know about these issues. They should also plan their village meetings so that they are made aware of these issues.

4.4 Participation of villagers/village forest committee members (Annex 12.3B)

This questionnaire is divided into three parts depending on the respondent. The reason why the questionnaire is divided into three parts is that information is needed on the relationship between the extension workers/villagers and the VFC members. The largest part concerns the work and attitude of the VFC members, as the VFC is seen as the most important implementing agency in the village. If the VFC members are not trained, properly motivated or know what is expected of them, action must be taken from the project side to remedy this.

Therefore, all villagers are asked about the meetings which according to the project document must take place; whether they know about the VFC, how it works, and its responsibility. They are also asked about the crucial aspects of selection of species for the plantation, how the plantation is to be protected and prior land use of the area selected for the plantation. The answers will clearly show the extent of motivation and if there are any conflicting issues requiring a solution.

A special section is spent on in-depth questioning of the VFC, where all aspects of this body's work on motivation, training, management and responsibility are dealt with. The VFW must study this part very carefully as it gives an almost complete curriculum for the training and motivation of the VFC. It also gives an almost operationilized view about how the VFC is expected to work and what issues they should concentrate on.

4.5 Benefits from the village woodlot (Annex 12.3 C)

One of the most important aspect of the Project is that the benefits should accrue to the villagers. If a skewed distribution of benefits takes place, something is wrong. On the other hand distribution of benefits from a common property resource is a very complicated issue, and any model of distribution practised has to be given time to develop. To find out how issues concerning generation of benefits whether in the form of employment or a forest produce, are treated in the village, questions are asked about employment, sharing of produce, distribution/selling of produce and Project support in the form of material.

The answers received would clearly show if the aim of giving benefits to all villagers has been fulfilled. Possible conflicts between factions will also become evident.

4.6 Motivation (Annex 12.3D)

This part treats how the project personnel have worked in the village. By reading through this section the VFWs/SFSs will get a very clear impression about what is expected from them in the extension work. Crucial issues relating to training, general motivation, use of publicity material, and presence in the village are covered. The relationship between the villagers and the extension worker is also investigated. It goes

without saying that the answers to these questions are crucial in assessing the effectiveness of the extension worker in the village.

4.7 Attitudes and suggestions (Annex 12.3E and 12.3F)

In these sections questions are put to all villagers about their views on how they have been made aware of the important issues in social forestry and also what are their personal opinions on such issues. The replies to the questionnaire would show how far the process of raising awareness and education in the villagers has proceeded. Thus any complaints or suggestions can be brought home to the extension worker. The questionnaire also shows what issues the extension worker should take up on the visits to the village. What is especially important is that the VFW/SFS can find out if the villagers know about their rights to the land and the produce, and how these rights are supposed to be managed. The importance of this information cannot be overemphasized as it has turned out that legal assurance to land and produce is needed for good participation in a community plantation.

4.8 Farm forestry (Annex 12.4)

As has been emphasized, private initiatives for tree planting are of extreme importance for the development of social forestry. In this questionnaire, all aspects of private plantations undertaken with plants received/bought from the Project are treated. This information will directly tell the extension worker about the success in motivating people for undertaking plantations on their privately owned land. The questionnaire will, to put it crudely, tell the extension worker about the real interest/ and knowledge of the individual.

4.9 Forest farming for the rural poor (Annex 12.5)

This questionnaire treats the special component aiming at helping poor and landless beneficiaries. The questionnaire is long, and comprehensively treats all aspects of participation of the beneficiary and the relationship to the extension worker and the project. The component is important as it clearly aims at some of the largest problems facing the poor living in the countryside. To find a model where resources are given and generated by the beneficiary without a long term commitment for support by a project is a very difficullt task. The answers to the the questions put forward here, would give vital information about this component. The extension worker would find that there are many things which are expected from him in his work in the selection and support of the FFRP beneficiary. Possible conflicts between the beneficiary and the other villagers would also be revealed so that action could be taken by the VFW/SFS.

5. Conclusion

By studying the questionnaires, and by discussing the results from the investigation, a powerful instrument is added to the arsenal of the extension worker in making the Project one where participation and dialogue between the project and the people is established. Ample time must be set aside by the Deputy Directors for discussion and training relating to the content of the questionnaires.